

FOUNDED IN 1856

RAILWAY AGE

THE STANDARD RAILROAD WEEKLY FOR ALMOST A CENTURY

LEGISLATIVE REFERENCE
SERVICE

MAY 9, 1951

RECEIVED MAY 9, 1951

FREIGHT TRAFFIC ISSUE

PREVENT LOSS of LADING!

LEGISLATIVE REFERENCE
SERVICE

MAY 9, 1951

RECEIVED



ADJUSTABLE LOCKS



THE WINE RAILWAY APPLIANCE CO. TOLEDO 9, OHIO

CLASS OF SERVICE

This is a full-rate Telegram or Cablegram unless its deferred character is indicated by a suitable symbol above or preceding the address.

WESTERN UNION

JOSEPH L. EGAN
PRESIDENT

SYMBOLS

DL	= Day Letter
NL	= Night Letter
LC	= Deferred Cable
NLT	= Cable Night Letter
Skip Reception	

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P W JOHNSTON, PRES=

ERIE RAILROAD MIDLAND BLDG CLEVE=

THROUGH YOU TO EVERY MAN AND WOMAN OF THE LOYAL ERIE FAMILY GO OUR HEARTIEST CONGRATULATIONS ON THE OCCASION OF THE 100TH ANNIVERSARY OF THE INAUGURAL RUN OF THE FIRST ERIE PASSENGER TRAIN BETWEEN THE HUDSON RIVER AND THE GREAT LAKES. ERIE'S HIGH POSITION ON THE ROSTER OF THE NATION'S GREAT HEAVY DUTY CARRIERS IS THE FRUITION OF A CENTURY OF CONSTANT PROGRESS CARRIED FORWARD BY A LONG AND DISTINGUISHED GROUP OF ERIE MEN ON EVERY LEVEL OF YOUR ORGANIZATION. WE HERE AT UNIT ARE PROUD INDEED THAT IN SOME SMALL MEASURE OUR UNIT TRUCKS HAVE PLAYED THEIR PART IN THE ESTABLISHMENT OF ERIE'S ENVIABLE REPUTATION FOR FAST RELIABLE SERVICE TO SHIPPERS EVERYWHERE. THIS MESSAGE WILL APPEAR IN THE MAY 7TH ISSUE OF THE RAILWAY AGE AS OUR PUBLIC ACKNOWLEDGMENT OF ERIE'S VITAL ROLE IN THE SERVICE OF AMERICAN INDUSTRY=

UNIT TRUCK CORP=



6

486
8
58

Don't Let IRON and STEEL SCRAP Gather Cobwebs!

Somewhere, back in a corner of your plant or shop, there's some scrap iron and steel. Maybe quite a pile, gathering rust. Maybe some obsolete machinery, long unused. Maybe odds and ends that total many tons. You've meant to have it hauled away, but somehow it's still around.

Now's the time to sell it!

Call the nearest scrap dealer; ask him to give you a price. He'll pay good money for it. Prices are high . . . the nation's steel plants need scrap badly. With a stepped-up defense program under way, scrap is more than ever a vital ingredient of steel production. Industry must help take up the slack—fast.

A constant flow of scrap means greater tonnages of iron and steel. It means more finished products made of iron and steel. You can help . . . and help yourself as well. Get that scrap in circulation. Get it on the job!

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

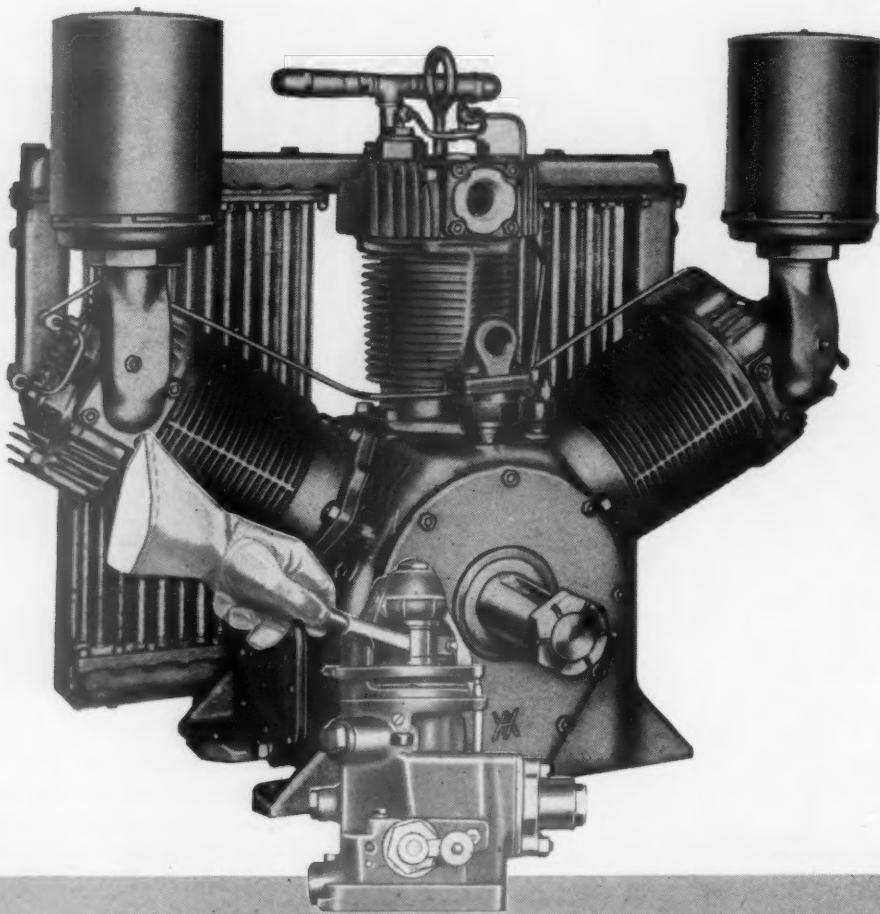
BETHLEHEM STEEL



If you don't know the name of a scrap dealer, look one up in the yellow classified pages of the telephone directory. You'll find a listing there.



Westinghouse CD Compressors



*Put **DEPENDABILITY**
behind every Brake Application*

Westinghouse Brake equipment asks no favors on any assignment—*except an unfailing supply of air*. That's the first requirement in modern train control, and no gamble with complete dependability can ever be justified.

Westinghouse CD compressors were developed to provide Diesel units with the same completely reliable air supply as the Westinghouse Steam Driven compressors are continuing to give through years of rugged service. Every feature reflects the intimate knowledge of railroad requirements and operational problems gained in over 80 years of close cooperation

with the nation's leading transportation system . . .

1. Radiator-type intercooler between high pressure and low pressure cylinders reduces temperature of discharge air and increases efficiency.
2. Full-pressure type lubrication system maintains even, constant flow of filtered oil to connecting rod crankshaft bearings and wrist-pin bearings.
3. Throw-off of oil from connecting rod bearings lubricates cylinder wall and also main crankshaft ball bearings. Oil pressure relief valve "meters" oil in accordance with compressor speed.

W Westinghouse Air Brake Co.
WILMINGTON, PA.



RAILWAY AGE

With which are incorporated the Railway Review, the Railroad Gazette, and the Railway-Age Gazette. Name Registered in U. S. Patent Office and Trade Mark Office in Canada.



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Railway Age Railway Mechanical & Electrical Engineer Railway Engineering & Maintenance
 Railway Signaling & Communications Car Builders' Cyclopedias Locomotive Cyclopedias
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Here's Protection
At Low
Cost!

SRD-5
"UNION" SELF-RESTORING
DRAGGING EQUIPMENT DETECTOR

With "Union" Self-Restoring Dragging Equipment Detectors on guard at approaches to interlockings, tunnels, etc., you receive continuous, automatic protection at such locations without the need for replacing the detecting elements after each operation.

When the detector plates are deflected in *either* direction by dragging equipment, the circuit controller sets the wayside signal ahead to warn the engineman. And since it restores itself automatically and immediately after each operation, the "Union" Self-Restoring

Dragging Equipment Detector is always ready to police following trains.

The restoring mechanism of the SRD-5 is located inside the operating shaft and all parts . . . except for the easily removable detector plates . . . are beneath the tops of the ties. Moreover, it is only necessary to remove the outside plates to permit use of the usual ballast cleaning machines. Consequently, interference to such equipment is minimized.

Ask our nearest district office for full particulars.

UNION SWITCH & SIGNAL COMPANY

SWISSVALE

NEW YORK CHICAGO



PENNSYLVANIA

ST. LOUIS SAN FRANCISCO

WEEK AT A GLANCE

HOW ARE WE DOING? How can we do more to present the facts of the railroads' position? How can we do better to help eradicate any remaining barriers between the building, maintaining and producing forces of the railroads and what should be the necessary goal of everyone in the railroad industry—to deserve to get and hold traffic? Those questions, honestly asked, occur at the conclusion of this issue's leading editorial (page 27), the main theme of which is an exposition of the purpose and philosophy of this—and of preceding and subsequent—monthly Freight Traffic Issues.

AS SHIPPERS WANT 'EM: To meet shippers' requests for information on scheduled merchandise services, at least 14 Class I railroads have recently issued such data in sufficiently uniform style to permit insertion in loose-leaf binders. A list of such railroads, and the titles of their merchandise schedules, is included in the news pages.

NEWS ROUND-UP: Santa Fe stockholders approve 2-for-1 split of common and preferred.—U.P. buys 52 diesel units.—Central of Georgia expands coordinated rail-truck service.—First four months' equipment orders include 1,008 diesel units, six steam locomotives, 47,730 freight cars and 72 passenger-train cars, with total value of over \$440 million.—New Jersey & New York proposes new reorganization plan.—New Haven inquires for 550 hopper cars.—House committee concludes St. Lawrence hearings.—Canada increases demurrage charges.—U. S. C. of C. won't ask easing of truck rules; favors strict enforcement.—Railroads need defense-industry status and adequate revenues to meet mobilization transport needs, Faricy tells Chicago Executives Club.—Pension bill hearings begin.—Parmelee data shows rise in rail costs.—"Fighting" briefs filed in divisions cases.—Freight Station Section program.

GOOD NEWS ON FREIGHT CLAIMS: That was mighty good news that was given to the Atlantic States Shippers Board at its recent Atlantic City meeting—as to the big reduction in payments for loss and damage to freight in 1950 compared with 1949. Equally encouraging is the report—also brought out in our page 54 account of the meeting—that payments in the opening months of this year are running just about equal to those in the corresponding months of 1950, despite the substantially larger traffic handled. Meanwhile, the never-ending battle against loss and damage continues with such new weapons as Pullman-Standard's "Compartmentizer," announced in last month's Freight Traffic Issue (April 2) and more fully described and illustrated on pages 34 and 35 of this issue.

A.W.P.A.: Starting on page 50 is a report of the 47th annual meeting of the American Wood Preservers' Association, held at Chicago April 24-26.

A FEW THOUGHTS ON ALLOCATIONS: Some of New York's leading newspapers picked up a nice little bit of change last week in the shape of full-page ads from the trucking industry appealing to the public—whose interest in and influence on the question is probably just about nil—for allocation of materials for construction of trucks to handle defense transportation. The ad said that railroads—which already have material allocations—are of such great strategic value that they would be a primary target for enemy attack in the event of a shooting war. It made no mention of the fact that railroads aren't knocked out as easily as truckers seem to think. And it carefully omitted any reference to manpower problems—to the fact that defense transportation must be handled with the fewest possible men (which means by rail); to the fact that making everybody a truck driver wouldn't leave enough men to shoot the necessary guns. On second thought, though, maybe the truckers do have one point in their favor. What could possibly strike more terror into the hearts of an invading army than an apparently endless line of oversize, overweight, overloaded trucks careening down the highway in utter disregard of all the laws of nature, God and man? American motorists may have become inured to such a sight through long and bitter experience, but Heaven help any "furriner" who sees it for the first time!

TRAFFIC MANAGEMENT'S NEW RESPONSIBILITY: "Industrial traffic management does have a new responsibility"—to intensify its interest in transportation problems, and to keep busy on those problems, in the selfish interest of business itself and of the national economy and security of the nation as a whole. Though we heartily endorse those conclusions, they are not ours, but those of one of the country's outstanding industrial traffic executives—Earl B. Smith, of General Mills, Inc. They have been expressed, with convincing supporting reasons, and in Mr. Smith's usual emphatic style, in a talk which he has recently made to a number of traffic clubs, and which is abstracted in this issue, beginning on page 30.

TOWARD BETTER CAR SUPPLY: Temporarily, at least, as N. P. President Macfarlane told the U. S. Chamber of Commerce at its recent Washington meeting, car shortages are on the decline. One big reason for the drop is, obviously, the strenuous effort the railroads have been making to reduce the number of bad order cars by intensive repair programs. At the end of January, for example, no less than 16 major Class I roads had bad order ratios of less than 2.5 per cent, and six of these were under 2 per cent. Nine roads, not necessarily those with the lowest averages, had less than half as big a percentage of bad orders in January 1951 as they did a year before. What roads? The N.C. & St.L., for one, down from 11.1 per cent to 2.3; it's easy enough to pick out the others from the table of freight operating statistics on pages 96 and 97. Col. Macfarlane's talk to the U. S. C. of C., incidentally, is reported on page 58.

Unicel

Stronger, lighter by 45%, larger and more durable than conventional steel freight cars, UNICEL is more versatile, has a greater earning capacity, is more economical to buy, operate and maintain!

A cellular laminated freight car built on aircraft engineering principles, UNICEL gains strength through shape; lightness through revolutionary new construction techniques. In place of the conventional steel body bolster, UNICEL has a "shock-dispersing" laminated bolster which is an integral part of the car body. A floating draft gear cushions and absorbs shock and pull jolts which damage lading! Road tests prove—there is 66% less road shock with UNICEL than ordinary cars!

Conceived, designed and built by men who know railroading, UNICEL is indeed the first really new freight car in 53 years!

Unicel costs less to maintain, resists corrosive action, requires fewer repairs, is easier to keep clean and free from contamination!

Unicel is more economical to operate, is lighter by 15,000 pounds, can carry a 65 ton payload!

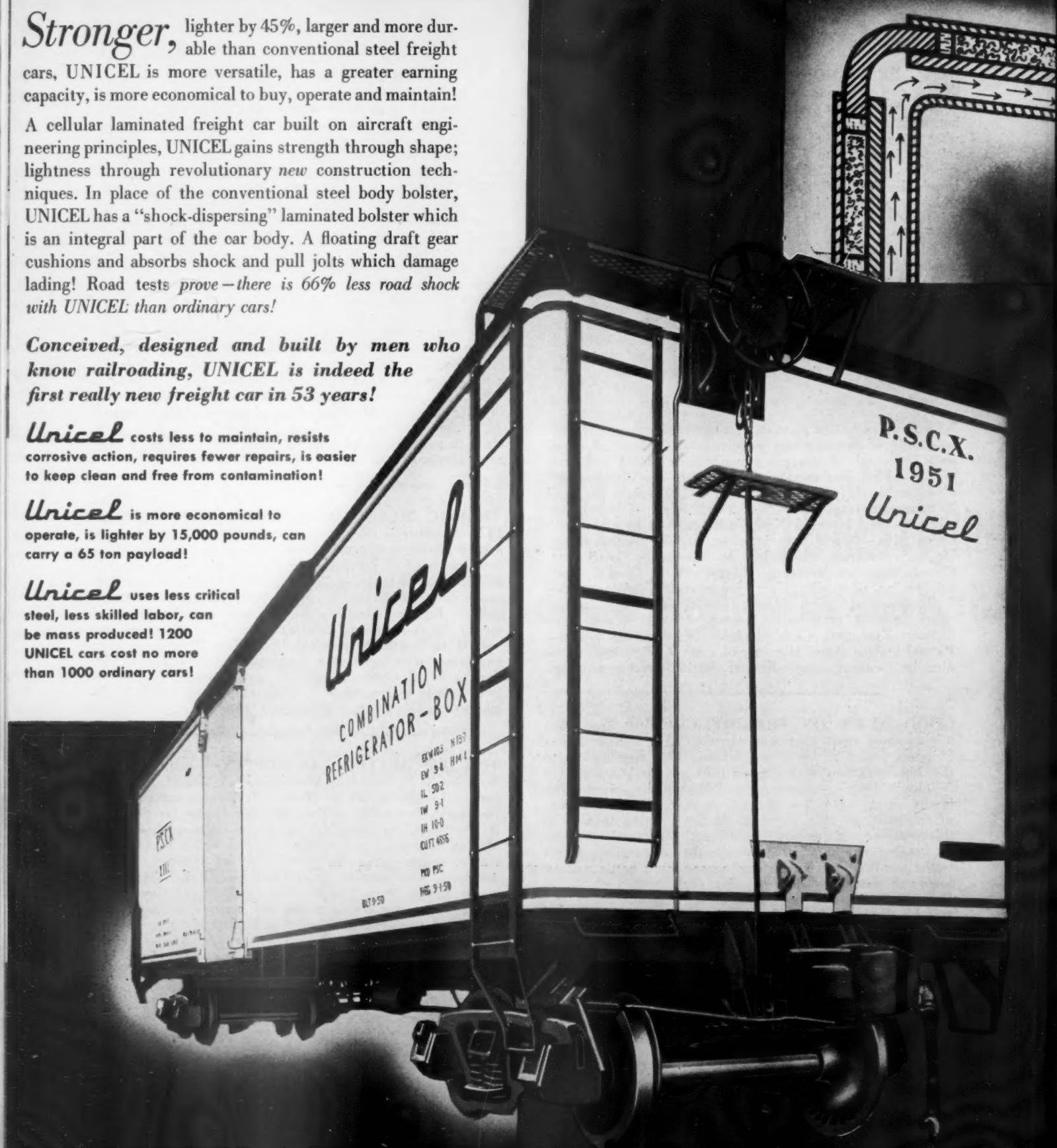
Unicel uses less critical steel, less skilled labor, can be mass produced! 1200 UNICEL cars cost no more than 1000 ordinary cars!

UNICEL
COMBINATION
REFRIGERATOR-BOX

EW 103 H 157
EV 98 H 144
IL 502
IW 9-1
IH 10-0
CUTT 4556
PSC PSC
HGS 9-150

BUD 950

P.S.C.X.
1951
Unicel



as efficient from conventional freight cars as a modern jet turbine is from a gasoline engine.

UNITEMP—A REFRIGERATOR CAR FROM UNICEL

Now in its own right, UNITEMP is a new, more effective insulated material. An inner wall and a temperature regulating system surround which extreme cold is maintained by compressed air generated by fans and turbines. Lading is actually surrounded by a blanket of cold air. UNITEMP preserves food without dehumidifying it, much like a refrigerator, in a manner as a modern housewife uses a refrigerator.

100%
LOADING
CAPACITY

UNISTRAP™—**UNICEL** has permanent straps successfully installed on floor, providing a complete bracing system without nailing or annoying damage to the car itself. It results in reduced costs of car loading, no bracing; reduces loss and damage claims, reduced damage to equipment. Exclusive with UNICEL, **UNISTRAP**™ shipping is a revolution in handling materials!

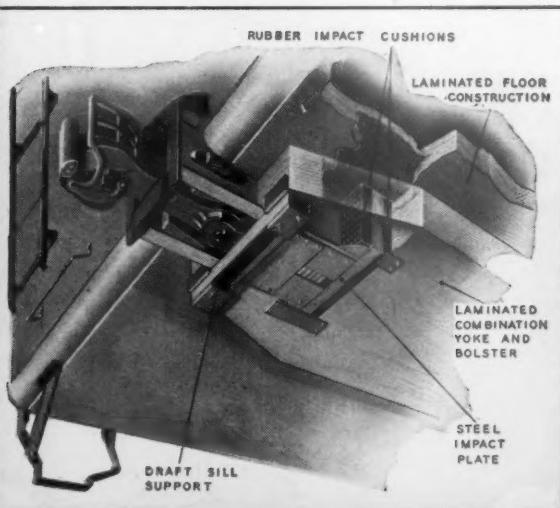
Unicel A FREIGHT CAR OR A REFRIGERATOR CAR!

By the simple addition of insulation, an inner wall and a mechanical refrigerating unit, UNICEL quickly converts from a freight car to UNITEMP—a refrigerator car with 75% more capacity than a 40 foot car of comparable weight, and superior in every way to the average refrigerator car now used by the railroads.

We proved it! In a special "Death Valley Laboratory", tests were run continuously for seven weeks to study moisture vapor passage and condensation. A 100,000 watt oven capable of reproducing abnormal summer heat achieved skin temperatures in the car in excess of 165 degrees!

UNITEMP passed all tests with flying colors; proved beyond doubt that it can maintain a more uniform temperature; keep condensation and dehydration to a minimum.

- Temperatures between 0°F and 55°F can be maintained as long as desired!
- Stops for re-icing are unnecessary!
- Two mechanical refrigerating units offer 100% security!
- Costs less than conventional refrigerator cars!



UNISIL FLOORING SYSTEM
lays back into the car body. The bumper protects the car body. Forces that blow into the car are absorbed by a shock absorber made of compressed rubber. There are 10 points of contact. Shocks are evenly dispersed evenly over the entire body.

Get the complete story.
A copy of "Unicel—The Freight Car of the Future—Today" is yours on request.



PRESSED STEEL CAR COMPANY, Inc.

6 N. Michigan Avenue Chicago, Illinois

210 Park Avenue, New York City

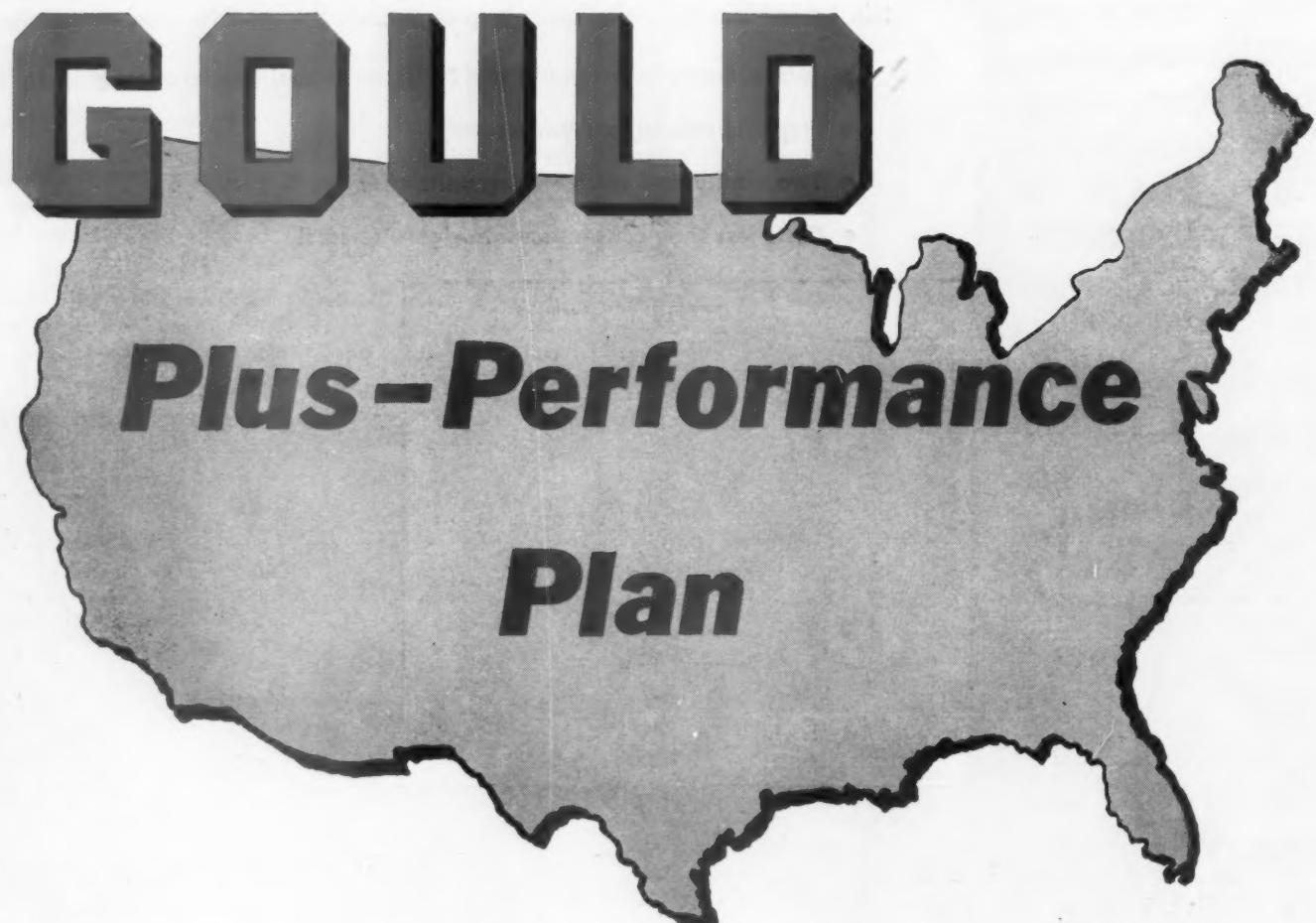


Here's Help

You demand more and more from your batteries as industry strains its facilities for defense.

To help you get more out of these essential tools of production—to choose, use, handle and maintain your batteries without waste—

Gould announces the



You Need Now!

Battery performance can be improved as much as 50%* if these eight points are put into practice:

- 1. Buy Your Batteries to Fit the Job.** Purchase of oversized or undersized batteries wastes money, materials and manpower.
- 2. Install Your Batteries Correctly.** Connect them properly, ventilate adequately and handle according to printed instructions.
- 3. Use Your Batteries Within Designed Capacities.** Overdischarge cuts down battery performance.
- 4. Charge Your Batteries Properly.** Use recommended rates of initial, finish and float charges.
- 5. Maintain Your Batteries Systematically.** Organize a preventive maintenance program.

- 6. Inspect Batteries Periodically.** Tighten loose connections and replace worn cables.
- 7. Test Your Batteries Regularly.** Keep a record of cell readings—know the condition of your batteries at all times.
- 8. Replace When Necessary.** When you know the condition of your batteries, you can place your orders far enough ahead to insure continuous service.

GOULD'S PLUS-PERFORMANCE PLAN is designed to help you conserve and extend your essential battery power. It is a complete, integrated system of manuals, articles, specifications, bulletins, record cards and charts which give you information on every one of these eight points—explaining and illustrating how to choose, use, install, charge, maintain, inspect and test.

*From tests in the Gould Research Laboratory and performance tests in the field.

LET THIS PLAN GO TO WORK FOR YOU... WRITE US TODAY!

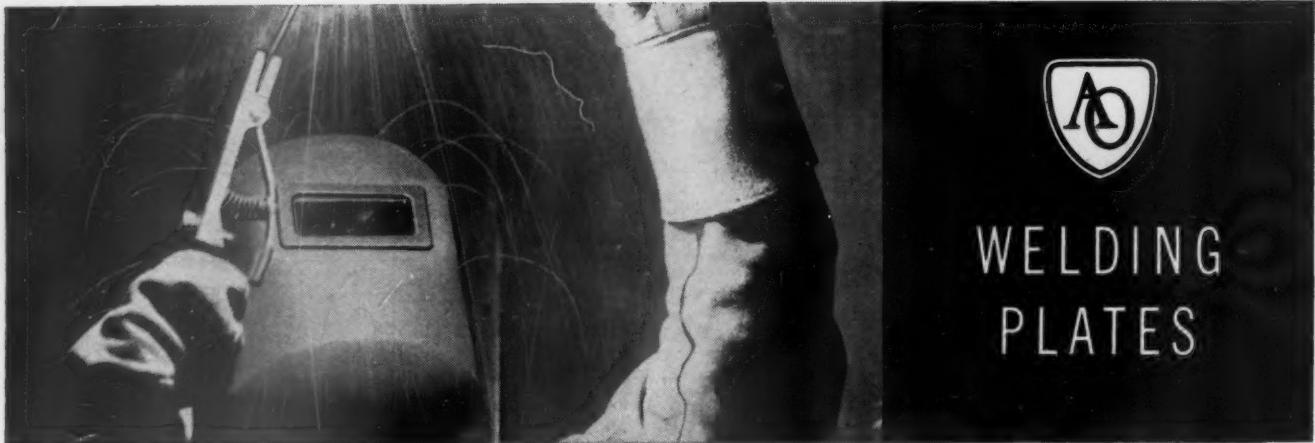
Any or all of the material available under the Gould PLUS-PERFORMANCE PLAN is FREE to battery users without obligation. A request on your letterhead stating the particular problem or problems in which you are interested, will bring the appropriate literature—and booklet explaining the complete plan—by return mail. Write us, attention Field Engineering Department.



GOULD

STORAGE BATTERIES
GOULD-NATIONAL BATTERIES, INC., TRENTON 7, NEW JERSEY

Always Use Gould-National Automobile and Truck Batteries



FOR UTMOST ECONOMY

where Heavy Pitting and Scratching are Problems

NEW AO PLASTIC COVER PLATE



Here's a new cover lens of clear, hard, thermally set plastic made to exacting AO quality standards that compares in smoothness and lustre with polished plate glass. ITS SUPERIOR RESISTANCE TO ABRASION MAKES IT IDEAL FOR WELDERS IN PROTECTING AGAINST PITTING BY WELDING SPATTER. Its long life in severe duty and ease of cleaning with soap and water or solvents represent the utmost in cover-glass economy and service. Your nearest AO Safety Products Representative can supply you.

QUICK FACTS

- Superior resistance to spatter and pitting
- Optically correct
- Clear—won't discolor under ordinary welding conditions
- Protects against eye fatigue due to obstructed vision—boosts production
- Highly resistant to breakage
- Won't peel, blister or shrink in service

1/16" thick approximately — smooth edged, as flat as plate glass, highly polished

American Optical
COMPANY
SAFETY PRODUCTS DIVISION

SOUTHBRIIDGE, MASSACHUSETTS • BRANCHES IN PRINCIPAL CITIES



Before PORUS-KROME* and VANDERLOY M, Diesel engines used up liners and crankshafts like Spain used up her income from the New World.

When Spain's supply of gold began to run short, the King sent old DeSoto out to find another Mexico or Peru. With 2,000 followers, he searched the wilderness from Florida to Arkansas. By 1542, nearly all the band had perished and DeSoto's body lay beneath the Mississippi River.

That news made Spain reverse her penny-wise and pound-foolish policy. She began developing the permanent value of her possessions, just as Diesel owners have.

Instead of machining away the bearing diameters of worn liners and crankshafts, they bring them back to original size with VANDERLOY M and PORUS-KROME.

No matter how badly worn, this processing gives such engine parts a longer service life than they had when new. And they can be restored again and again — each time for less than the price of hard-to-get replacements.



*PORUS-KROME is a dense, hard, wear and corrosion-resistant chromium, produced by the Van der Horst Corporation of America, and which gives working surfaces an infinite number of tiny oil-retaining reservoirs for perfected lubrication.

VAN DER HORST CORPORATION OF AMERICA • OLEAN, N. Y.

U. S. PATENTS 2,048,578, 2,314,604 and 2,412,698

PORUS - KROME

VANDER HORST
TRADE MARK

Good for the Life of your Engine

Save \$\$\$ on Cylinder Head Repairs

with "HELIARC" welding

Trade-Mark

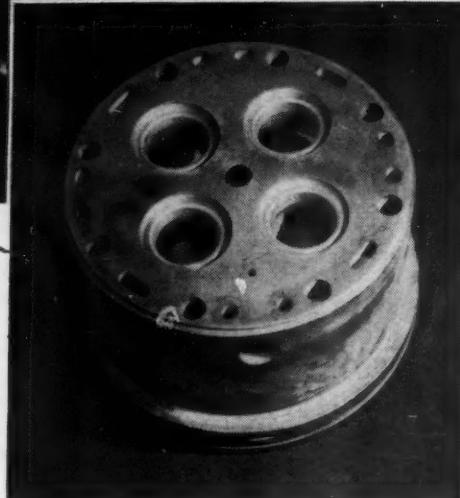
Building up a worn valve seat using cast iron rod. Note the compact heat-retaining box.

You don't need to scrap worn or cracked cast iron diesel cylinder heads. A worn one can be made as-good-as-new and at less than half the cost of a new head by means of HELIARC inert-gas shielded arc welding. Only with HELIARC welding will the molten cast iron in the puddle take on a remarkable fluidity that makes welding easy.

Cracks near the injector hole and in the areas of the stud holes as well as worn valve seats are speedily repaired using this process.

Ask OXWELD for details on how this and other money-saving repairs are made on diesel parts.

The term "Heliarc" is a registered trade-mark.



Cast iron diesel cylinder head repaired by HELIARC welding and ready for thousands of hours more service.



OXWELD RAILROAD SERVICE COMPANY

A Division of Union Carbide and Carbon Corporation

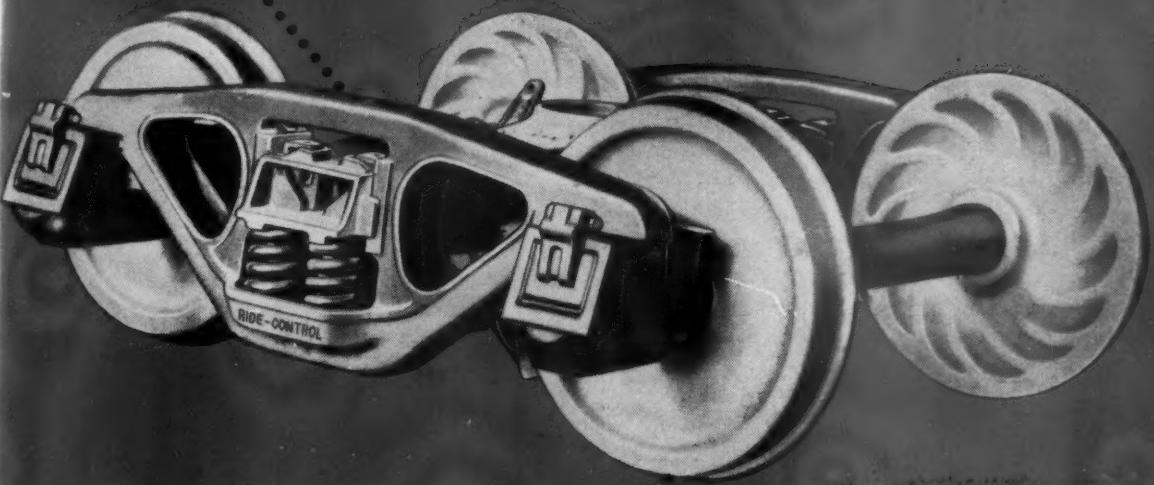
UCC

Carbide and Carbon Building

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SINCE 1912 - THE COMPLETE OXY-ACETYLENE SERVICE FOR AMERICAN RAILROADS



On-Target Design

*makes the A·S·F
Ride-Control® Truck
a standout by every
comparison*

However you judge a freight car truck—by simplicity, fine riding qualities, or economy—you'll find Ride-Control at the top of the list, as it has been from the first.

So well does this modern, smooth-riding truck serve railroading's various needs that, today, it is specified in *far greater volume* than all other freight trucks combined.

Billions of profitable, low-cost miles prove performance beyond all question... performance that proves the value to you of A.S.F. *objective* designing.

Lowest Maintenance

Smoothest Performance

for all cars at all loads, all speeds

----- **AMERICAN STEEL FOUNDRIES** -----

Mint Mark of  *Fine Products*



One of the 160 Uses of **CONCRETE** on Railroads

NO. 1 OF A SERIES

These concrete service platforms in the Atlantic Coast Line's important passenger yard at Florence, S. C., 9,360 ft. long, enable the station to handle the longest trains, improve service and make maintenance easier and far more economical.

Concrete platforms are just one of the more than 160 uses for concrete which enable American railroads to improve service and save time and money. The moderate first cost of such concrete improvements—plus their long life and low maintenance cost—results in true **low-annual-cost** service. This saves money for other necessary budget items.

PORLTAND CEMENT ASSOCIATION
33 West Grand Avenue, Chicago 10, Illinois

A national organization to improve and extend the uses of portland cement and concrete . . . through scientific research and engineering field work

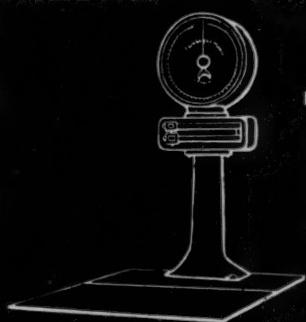
TRACK SCALES
The railroad world's long-time favorite



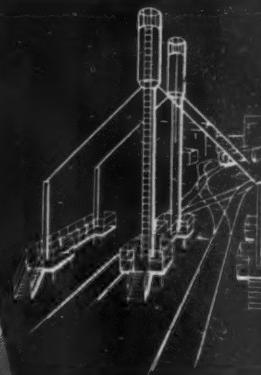
TURBINE PUMPS
Oil or water lubricated models



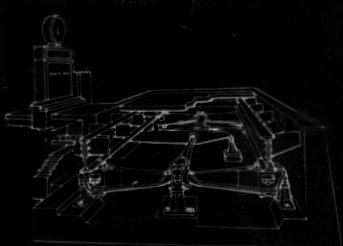
WAREHOUSE SCALES
Dial scales for warehouse weighing



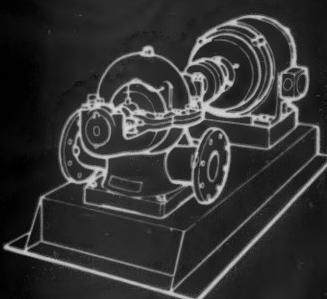
SAND STATIONS
with new, fast-action, easy-to-use sand nozzles.



TRUCK SCALES
True weight measurement for
years of off-track operation



CENTRIFUGAL PUMPS
Also positive displacement
types for fueling stations



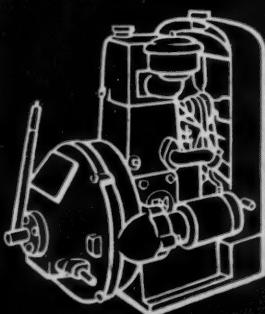
FOR COST-REDUCING RAILROAD EQUIPMENT...



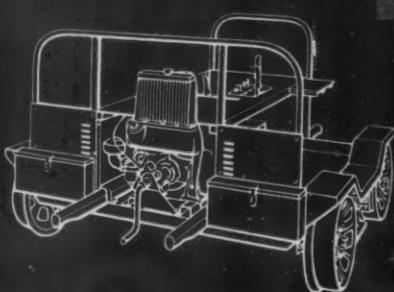
FAIRBANKS-MORSE,

a name worth remembering

DIESEL LOCOMOTIVES AND ENGINES • ELECTRICAL MACHINERY • PUMPS • SCALES
HOME WATER SERVICE EQUIPMENT • RAIL CARS • FARM MACHINERY



GENERATING SETS
Gasoline and diesel engine models



RAIL CARS
Complete gang and inspection equipment,
including the new model 101 with im-
mediate reverse and other safety features.



...and you're ahead with AAR SOLID BEARINGS every time



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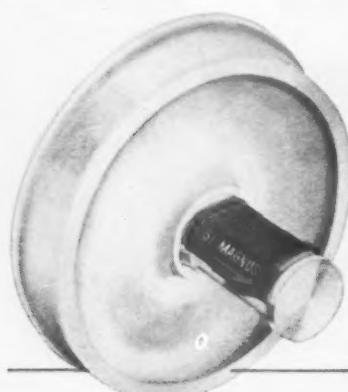
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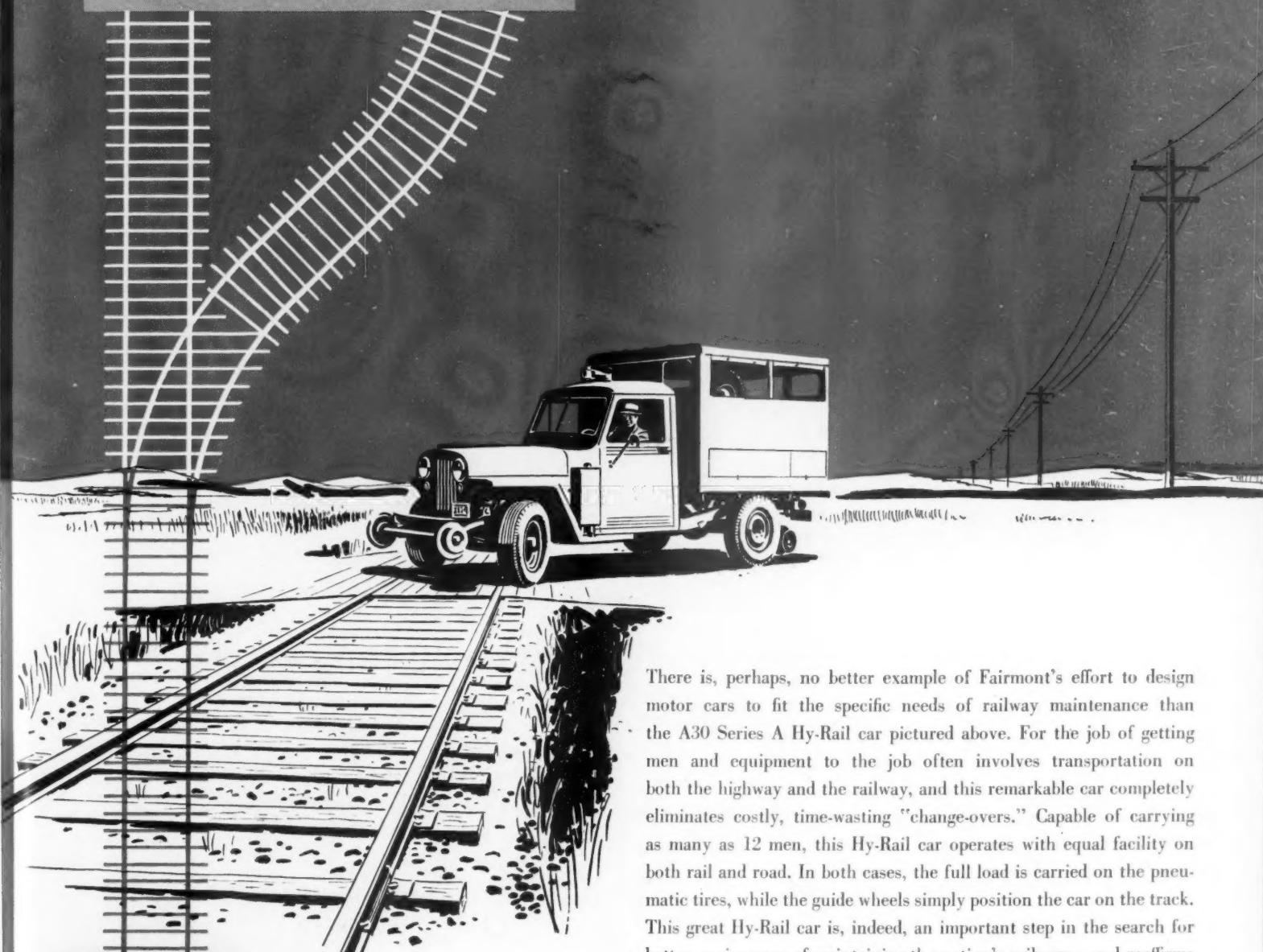
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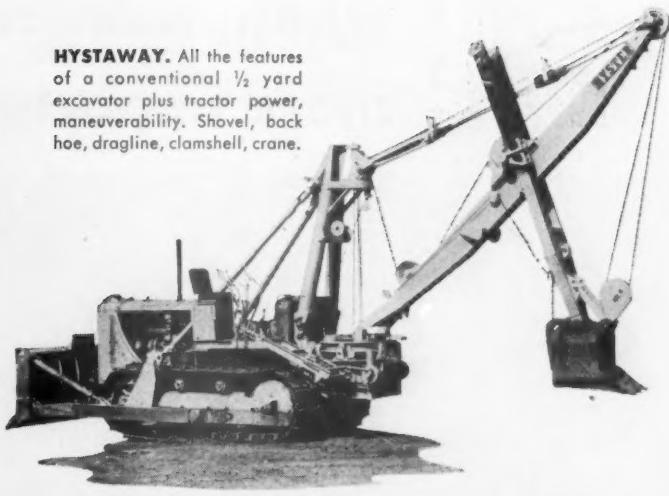
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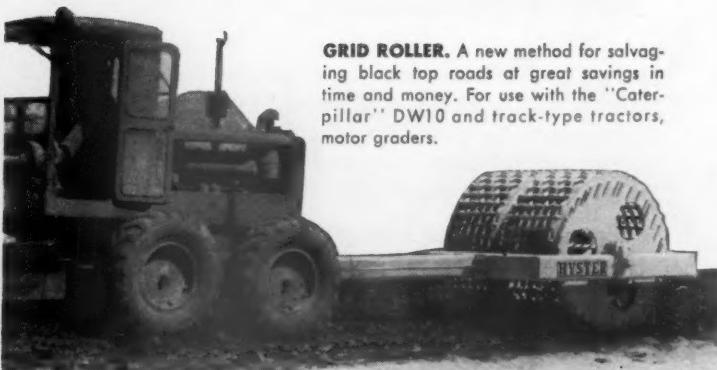
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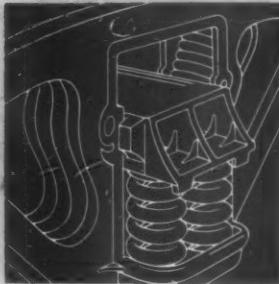
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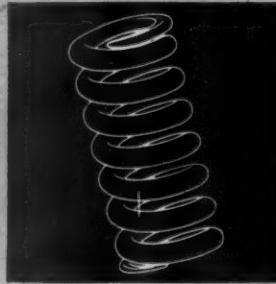
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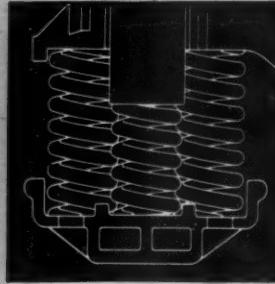
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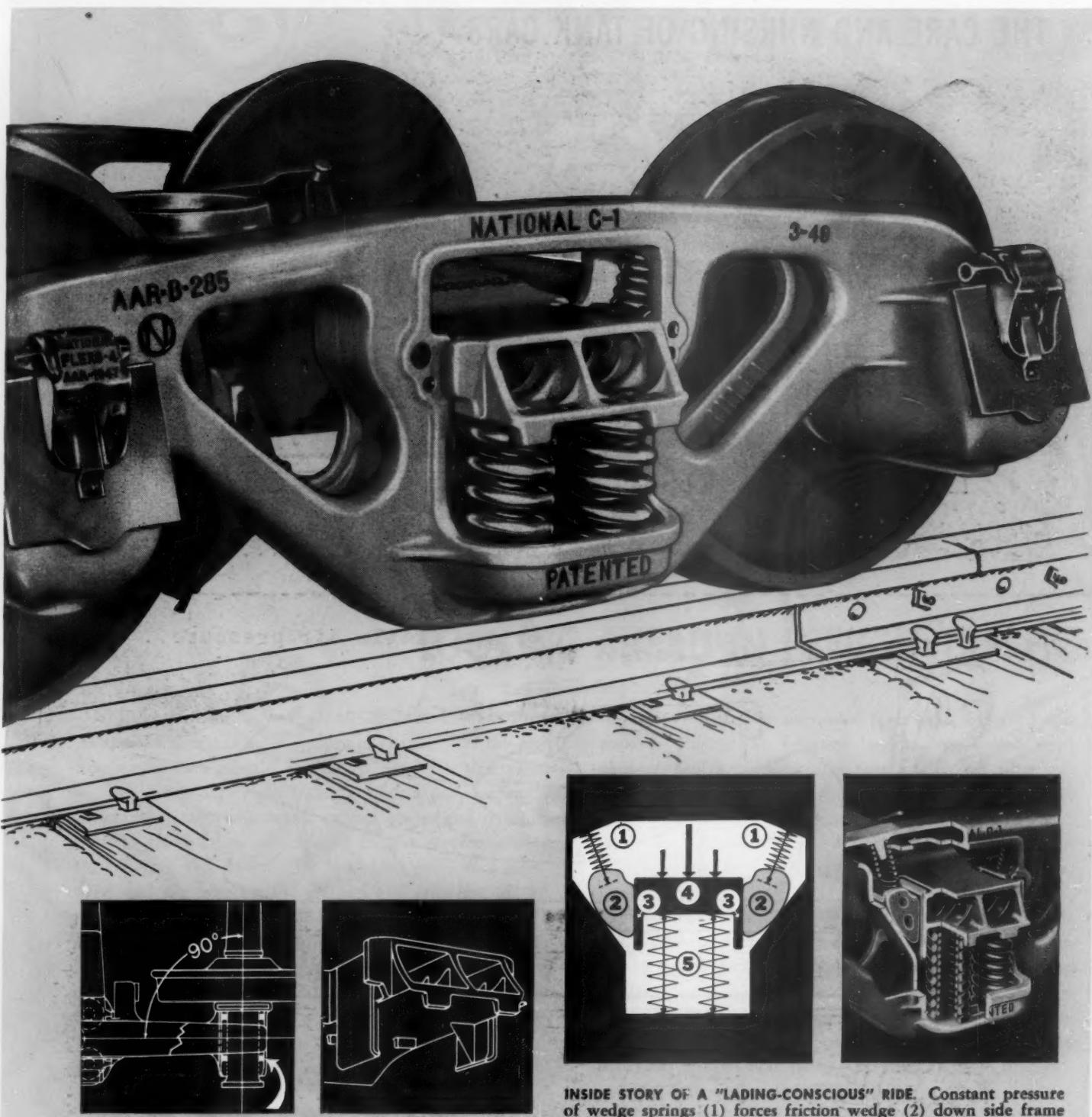
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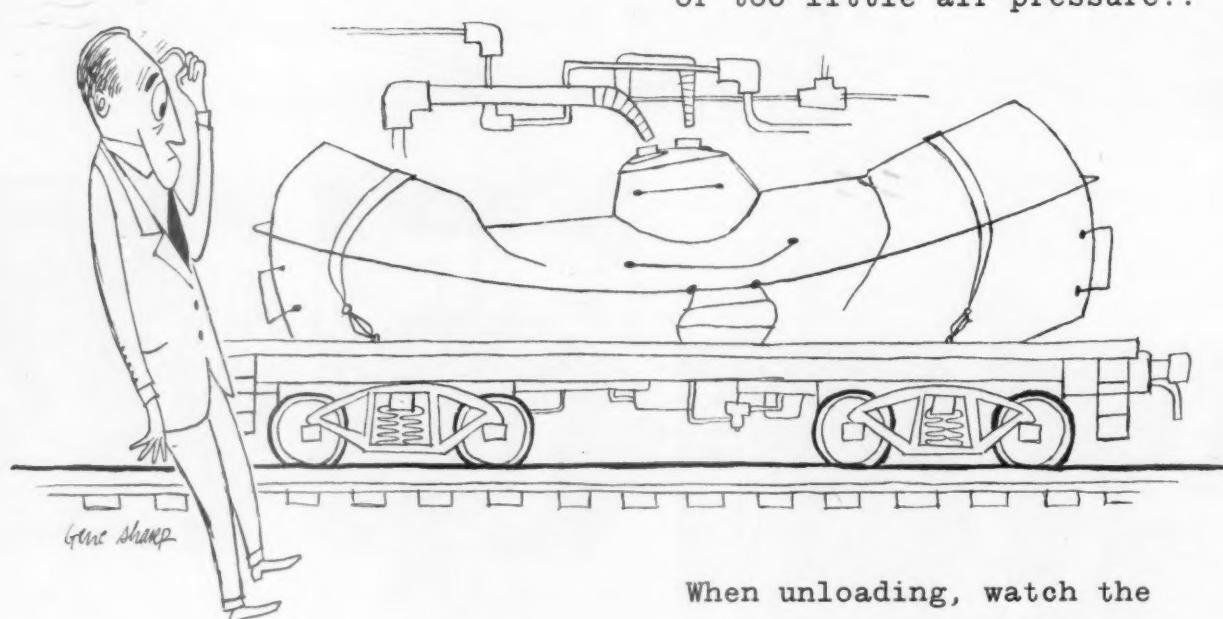
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LOOKING AHEAD IN FREIGHT TRAFFIC

This issue of *Railway Age* is the *monthly Freight Traffic Issue*, which has been appearing regularly as the first number in each month. Behind the emphasis this paper is thus laying on freight traffic is both a purpose and a program—vitally important, in our prejudiced opinion, both to the patrons of railroad freight service and to the railroads themselves. This is a novel publishing enterprise and one wherein the counsel and criticism of our readers—on both shipper and railroad sides of the fence—will help us do a better job for them. We are going to tell you, then, as clearly as we can, what we are aiming at—inviting you, in turn, to tell us how good or bad you think our aim is, and how we can improve it.

What We Are Aiming At

With these monthly Freight Traffic Issues we have set out to do two things, namely, (1) to inform shippers of the specific facilities and services individual railroads are providing to serve them better, and (2) to attract more attention by departmental railroad people to the real goal of all their efforts, which is, or should be, to satisfy the shippers and receivers of freight. We do not, of course, belittle the importance of other railroad services—but in this one issue a month we are concentrating attention on the railroad industry's principal function, which is the hauling of freight.

A new freight yard, for instance, is not a final goal—like a beautiful statue. It is, or should be, a means to faster or more economical service for the shipper and receiver of freight. If we print pictures and a description

of such a yard—plus information on what this yard will mean to shippers in improved service—we believe most shippers will be interested in thus finding out what one railroad is doing to serve them better. Reading the same article, railroad men will note the emphasis—not just on what the new yard looks like and how it works, but especially on the yard's significance in serving the customers better.

Few shippers will quarrel with the opinion that it would be a good thing if more and more railroad men would get to thinking more and more in terms of the customer's interests. The cumulative effect of articles written with this emphasis—on this paper's more than 8,000 subscribers in high places on the railroads (plus easily three times that many additional railroad readers)—could scarcely be otherwise than to contribute substantially as time goes on toward increased "customer-mindedness" on the part of railroad men.

Similarly, with the industrial traffic fraternity, the cumulative effect of articles telling about service improvements by individual railroads should be, at length, to improve the opinion in which these particular railroads are held by shippers.

In sum, we believe there is a lot of common ground of vital mutual interest between customers of the railroads' freight service, and the railroads themselves. We have set out to cultivate and otherwise nourish that common ground, and our success in doing so should prove beneficial to all concerned. In pursuing this goal we have by no means become an "industrial traffic man's paper"—we are still 100 per cent pro-railroad, and are under no

obligation to publicize the merits of any other form of transportation except that by railroad. When anything critical of the railroads appears in these pages, the purpose is constructive and correctional—not combative.

We blame no shipper when he chooses other forms of transportation, if the railroads do not serve him adequately—but no convenient tips as to the merits of such services will be found in the pages of this paper. On the contrary, our effort is constantly in the direction of spreading "know-how" among the railroads, so that there will be a minimum of incentive for their customers to wander elsewhere. And, by adequately publicizing improvements in railroad service among shippers, we hope the railroads will in the long run get more credit than has sometimes happened for their really praiseworthy efforts and accomplishments.

These Freight Traffic Issues, from month to month, provide a continuous catalogue of new freight services, equipment, yards and stations. If the items in the catalogue are not as numerous or as attractive as some railroaders might want, they have a direct remedy: to develop on their own properties a "merchandising sense" which is able to discover in its own stock of virtues the items which are saleable and to make them known. Too often a device, or operating practice, or company policy which is unusual, different, and of direct interest to shippers is allowed to lie buried and non-productive. Goods like these belong out on the shelves.

Sounding Board for Shippers

What good can shippers get out of reading a pro-railroad paper? The answer, insofar as it concerns articles about new and improved services, is self-evident. Equally obvious is the value of reports about tested successful practices employed by shippers themselves in getting the best possible use out of railroad service through good packaging; strategic location of plants and distribution points; loading of through pool shipments; intelligent utilization and care of railroad cars, and the like. Not so clear, but of equal importance, are the intangible values which shippers gain from the publication of views of their colleagues on the industrial side of the fence. Getting such proposals before this paper's railroad audience is bound to redound ultimately to the benefit of the shippers themselves—in increased response by the railroads to their needs. We are offering to the shipping fraternity, in short, a sounding board, with a hand-picked audience.

As a result of the upsurge in carloadings since Korea, railroaders have been busy handling traffic and getting the plant ready for a bigger load ahead. Many of them who are not in direct contact with shippers have tended to lose sight of the fact that the competitive position of the railroads was growing steadily worse before the Korean "incident." In the first nine months of 1950, tonnage of interstate certificated motor truck lines was 23 per cent higher, and revenues 28 per cent higher, than

in the same part of 1949. In the same period, the tonnage of regulated water carriers was up 10 per cent, and revenues, more than 20 per cent. More significant: tonnage on the Mississippi and tributaries—much more competitive with the railroads than the heavily weighted Great Lakes traffic—increased more than 24 per cent. In the face of these increases in patronage of their competitors the railroads enjoyed an increase in tons carried of only 4.5 per cent, and in freight revenues of 5.7 per cent.

It is the constant purpose of this paper to hammer away at the facts of the railroads' position—however unpalatable they may be—and to help eradicate the remaining barriers isolating the building, maintaining and producing forces of the railroads from the necessary goal of everyone—to get and hold traffic; and to deserve to do so. Saving the railroads for private enterprise is certainly a worthy objective, and this effort ought to help. Call it preaching if you will—it is preaching from a marshalling of facts and not by exhortation. We hope we are making it interesting. How do you think we are doing—and how can we do it better?

LET'S CUT A HOLE IN THE FENCE

The rapid dieselization of American railroads during the past three or four years is recreating a situation with respect to the education of engine crews and maintenance forces which existed during the first fifteen or twenty years of the century. Available for instruction purposes at most division points in those days were schoolrooms in which were set up sectional or operating models of various steam locomotive appliances, the number of which was multiplying rapidly. These models and devices were for the use of the men in the ranks, who were encouraged to familiarize themselves thoroughly with their construction and operation.

The immediate problem with respect to diesels is an acute one. It involves instructing road men and maintenance men in rapidly expanding numbers in methods of operation, inspection and maintenance. Its success in keeping up with the expansion in the number of locomotive units in service depends upon limiting the scope of the instruction to how to operate and perform routine inspections of the equipment.

The ultimate problem has hardly yet been touched. It involves supplying the information which will satisfy the curiosity of men dealing with the new type of motive power and ground them in the principles involved and how they are applied in the locomotive. It is this part of the problem which most closely parallels the type of instruction employed during the early years of the century. There was little difficulty then for a traveling engineer to set up classes to catch the road men during layover time. If shop men were involved, they could at-

tend on company time or their own time, whichever was most convenient.

Today, however, the question as to whose time shall be devoted to acquiring this kind of education has become a matter of union-management agreement. Once an agreement has been written, the answer becomes a hard and fast rule. The employees are jealous of their prerogatives and are alert to see that they do not contribute any time of their own. In most cases management is equally alert to see that it makes no concessions beyond the letter of the contract. Thus is a tight wire fence built up between employees and management by which both are handicapped in the advancement of their own interests. The advancement of the knowledge of the men in the ranks is of value to management and men alike. Its value accrues first to management, however, in improvement in performance or reduction in the expense of the operation of the railroad, and, as a result of this, may become of direct economic value as well as a matter of satisfaction to the employees themselves.

Who, then, is to make the first move to relieve this impasse? The management has the self-interest and certainly should have the greater breadth of vision to see the advantage of dropping a narrowly controversial viewpoint. Until management is willing to make concessions beyond the letter of its obligations, there is little hope for the wholehearted support of railway employees in situations where the company's benefit is at stake.

TROUBLES OF FRANCE'S SOCIALIZED RAILWAYS

An indication of the kind of trouble a nation runs into when it socializes its railroads comes in some figures from France. The nationalized railways in that country in 1950 incurred operating expenses of \$1 billion—compared to operating revenues of \$750 million. Wages alone totaled \$600 million. These statistics are cited by Bertrand de Jouvenal, the eminent French political analyst, writing in the Washington news letter "Human Events" for April 25.

There are 450,000 employees on the French railways, M. de Jouvenal reports, and 350,000 pensioners—an imbalance which is accounted for by the early retirement age, which is 55 for all employees but locomotive engineers, and 50 for engineers. Because of the pension burden and other "social services," only 52.6 per cent of employees' pay comes to them in "take-home" form; 47.4 per cent being withheld for various "benefits"—such as free burial, free vacations on railway property, free transportation, and free marriage expenses.

The employees get a lot of things, superficially free of charge, but actually paid for out of low "take-home" wages. Purchasers of transportation get bargain rates, which they make up for in taxes. Maybe, if the employees,

instead of getting their wages docked 47.4 per cent, were to provide for their own vacations and funerals—and take home 100 per cent of their wages—they would be better off.

The difficulty the nationalized British railways are experiencing in both (1) giving the unions all they insist upon and (2) keeping rates and fares at a level that people will pay was reported in these pages in our April 16 issue. In Britain, the government has not yet decided, as France has, to give up trying to make ends meet in railway operation, and to hand over the deficit to the taxpayer as a recognized practice—but that may come, since railway rate increases in Britain have been far higher than in this country, as the "Monthly Comment" of the I.C.C.'s Bureau of Transport Economics and Statistics has pointed out (*Railway Age*, April 23, 1951, page 34). "It does seem hard," M. de Jouvenal observes, "but capitalist greed is not there to bear the blame."

The conclusion is inevitable from the evidence that *socialism, if coercion is lacking, solves none of the problems which arise in operating large scale enterprise.* Costs of doing business do not decrease under socialism—instead they are magnified. Hence, charges to the public have to be increased much further than would be necessary under private ownership—either that or the steadily growing deficit has to be passed on to the taxpayers, a form of continuous bankruptcy. As long as only one or two industries are socialized, possibly the tax burden of their deficits can be borne. But when virtually all large industry is socialized, these burdens become so great as to threaten the national solvency. At that point, governmental coercion has to step in to prevent chaos. Customers have to be forced to work at wages within a prescribed expense budget. That is the socialism they have in Russia.

So many people delude themselves with the belief that they can have just a little socialism and stop. In this country we have socialized water, air and truck transportation (socialized, that is, as far as fixed plant is concerned). The taxpayers pay the deficits—and thereby make this transportation seem cheaper than it is, thereby undermining the railroads and threatening them with socialization too. Thus it is that socialism, if accepted at all, invariably spreads—and the further it spreads the more certain it is to require physical coercion of employees and citizens to make it work and not bankrupt the country.

Ultimately there is no choice but 100 per cent capitalism on the one hand and 100 per cent slavery to the state on the other. Any seeming half-way stage between the two is only an incident of transition. There are union leaders who insist that they cannot get reasonable concessions from employers, and vice versa. There are customers who consider their suppliers as hopeless scalawags, and vice versa. Such attitudes, while understandable, are untenable. The people involved must find means of agreeing with each other if large-scale industry is to function effectively under freedom. The only alternative, if freedom can't be made to work, is to resort to slavery.



"Railroads are the basic agency for the great bulk of mass transportation in this country—as well as the most vulnerable from the standpoint of nationalization"

Transportation—And

INDUSTRIAL TRAFFIC MANAGEMENT'S NEW RESPONSIBILITY

By EARL B. SMITH
Vice-President and Traffic Director
General Mills, Inc.

The national transportation system of this country is a colossal machine in which \$110 billion of both private and government money have been invested. The huge sum of about \$40 billion is now spent annually in this country for all kinds of transportation service—to move goods and people.

While it is true that public funds have been expended to provide and maintain the waterways, the highways, and the airways—while private money has provided and maintained the railways and pipe lines—the fact still remains that with the exception of the Federal Barge Line, all of the facilities operated over these various avenues of commerce are generally privately owned and privately operated. They are a part of our free competitive enterprise system.

Surely there can be no question as to the continuing need for suitable, adequate, efficient, and economical transportation. But whether our transportation agencies can continue to render the kind and quantity of service we want; whether they can provide the improvements that will bring about the economies of operation that will give us the most economical transportation; and whether they can continue as free competitive enterprise—will depend very largely upon whether they can attract the necessary private capital.

The service performed by our railroads alone is so essential to our whole society that, if it cannot be pro-

vided by private funds, then it must be provided by government—even though it must be done partly, if not largely out of tax funds. If such an eventuality becomes the only recourse in the case of the railroads, it will mean government control and operation of all our transport. There is no more important, or far-reaching public-domestic-business problem before us today than this one which involves continued private ownership and operation of our national transportation system. If the withering hand of government ownership ever falls upon it—God help us all! That would be only beginning.

What the Railroads Face

Each and all of our separate agencies of transportation are needed in some way for rounding out our national transportation system. But the railroads are the basic agency for the great bulk of mass transportation in this country—as well as the most vulnerable from the standpoint of nationalization. Many of our railroads have been in a most unfavorable position, especially in the matter of attracting private capital—and that is our major concern.

During World War II our railroads operated under favorable conditions which immediately reflected improved net earnings. By the time of the Japanese sur-

render in September 1945, the railroads as a whole were in better financial shape than at any time since 1910. But it was realized this prosperity was only temporary—that it was only a question of time before the trends which had reduced the railroads to their precarious financial condition of 1939 would reassert themselves. In spite of the highest rates and largest peacetime traffic in history, only a relatively few of our railroads have been able to produce a net return which will attract private capital—and I repeat that this is our major concern.

Now, however, in the space of months, the trends seem changed once more, because the railroads are again on the threshold of vital service to the country. But the war clouds which are now hovering over us have no more chance of permanently correcting our transportation agency difficulties than did World War II conditions. The long-term answer does not lie in the fact the economic organization of this country is now called upon, industry by industry, to mobilize for the common defense.

Difficulty: Disinterest and Apathy

Much of the difficulty seems due to the disinterest and apathy of business leaders, and the public in general—including us industrial traffic managers and us users of transportation as a group; and to the failure of government bodies to adopt or observe adequate and proper transportation policies for the orderly and equitable development and conduct of these public services. Our transportation machine as a whole represents vast excesses, both government and private—for which the public is required to pay in rates and taxes. There are overlapping and conflicting federal laws governing our transportation agencies—as well as wasteful government expenditures, and cumbersome and ineffective regulation. There is discrimination in the distribution of federal aids to transportation.

On top of everything else our various agencies of transportation have continued largely at grips with one another. Then, too, there has not yet developed a proper degree of constructive cooperation between the transportation agencies and us users of their transportation services. We seem still to overlook our long-term, mutual self-interest.

Once a business organization has started, the function of transportation is just as much a part of the daily business as is purchasing, production, sales, advertising, distribution or accounting. While we users do not own the transportation agencies, our success is largely dependent upon them—and thus their welfare and their operation are of much concern to us.

The traffic manager, in his properly attained sphere, seems now to have become analogous to the legal counselor of his firm, who is hired to know the law and answer questions as they arise. This new era for



"The war clouds now hovering over us have no more chance of permanently correcting our transportation agency difficulties than did World War II conditions"



THE AUTHOR is widely known in traffic circles as a forthright advocate of private transportation ownership who is not afraid to speak his mind. As traffic head of General Mills, Inc., Mr. Smith is responsible for planning the traffic pattern of some 40 mills and plants, 112 grain elevators and a chain of nearly 70 farm service stores scattered, literally, from coast to coast. Each year he and his department's staff pay a railroad freight bill of between \$50 million and \$60 million for services received from some 150,000 freight cars. Hence his knowledge of what private transportation can "deliver" is not only first hand, but highly realistic. His genuine personal concern over the railroads' inability to attract new capital and the creeping trend toward nationalized transport is manifested in the accompanying article—a condensation of a recent talk delivered to a number of traffic clubs about the country. His prescription: that traffic managers take on "constructive responsibilities" as counselors for business.

industrial traffic management can be attributed not alone to the increasing awareness on the part of business managements that an efficient and alert traffic department provides far more than the mere movement of freight, but also to the awakening of the traffic manager himself to the full scope of his more constructive responsibilities.

It is generally understood that the first element of the industrial traffic manager's job is the control of his company's freight. Then there is also the responsibility for administration of his traffic department. In addition to these internal functions, there is the third component of his job—that big one of representing his company before external publics which are concerned with transportation. These are many, but include customers, competitors, carriers and the regulatory bodies of government which regulate transportation agencies.

We industrial traffic executives have reached that day when we must also devote a proper amount of our time to bringing about a new and a proper national transportation policy and practice—one in which the transportation problem will be treated as a single, unified problem including all agencies and all facilities of each agency; and in which the government's attitude toward and treatment of each and all agencies of transport will be reasonably consistent.

The New Responsibility

Before much progress can be made we must know reasonably well where we are and where we are going. A few of the many points now to be determined are: (a) the extent to which each mode of transportation is really essential; (b) the very minimum extent to which government aid is actually necessary; (c) the appropriate role to be played by our federal government in transportation development; (d) the means of financing which shall be conducive to the provision of maximum service and economy; (e) the best means of developing transportation as a unified system rather than by single agency; and (f) the most intelligent governmental regulation—how to attain it and have it properly administered, in the very best mutual interest of the public and those who provide the transportation.

This has merely scratched the surface. But is there any group who should be able to contribute more to the determination of such important points than the industrial traffic managers? I know of none.

There is the question whether individuals, as well as various groups and communities, are not adding to our transportation problems in numerous ways; for example, by encouraging ill-advised expansion of carrier facilities, and by tenaciously resisting the abandonment of their obsolete facilities and service. Are we industrial traffic executives exerting a proper and well-advised influence with regard to such features? It is one of our responsibilities to do so.

In the matter of effecting fair competition within and between our separate agencies of transport, there should be only such regulation as required in the public interest—in line with 20th century conditions. No regulation should be imposed upon or continued in force with respect to any means of transportation unless such regulation be specifically required in the public interest; and no regulation should be imposed upon any one means of transportation merely because the public interest requires that it be imposed upon some other means of transportation. Who should be able to determine, better than the industrial traffic executives, what

regulation is really essential under present-day conditions?

And who should know, better than these specialists, how, and by what sort of regulatory agency our regulatory laws could best be administered to serve the greatest public interest and need?

The Job Ahead

There is a big job ahead—and it must be more zealously approached without delay, while the tonnage and gross income of our transportation agencies continue relatively high.

Confining ourselves to the railroads once more, their estimate is that even with the large tonnage which will be transported this year and the increase in freight rates and charges which they are now seeking, their net railway operating income for 1951 will very likely represent a return of only about 4.2 per cent on their net investment.

We must remember, too, that the cost of additions and betterments for the railroads will have to continue at a level substantially greater than in the past. Depreciation reserves set up on the basis of original costs are inadequate by substantial margins to replace retired plant and equipment. Thus the necessary funds will have to be obtained largely from earnings—and we all know that as each year has gone by the real purchasing power of the dollar has become less and less in relation to prewar years. Already, in terms of purchasing power, it takes over \$2 of net railway operating income to equal one prewar dollar.

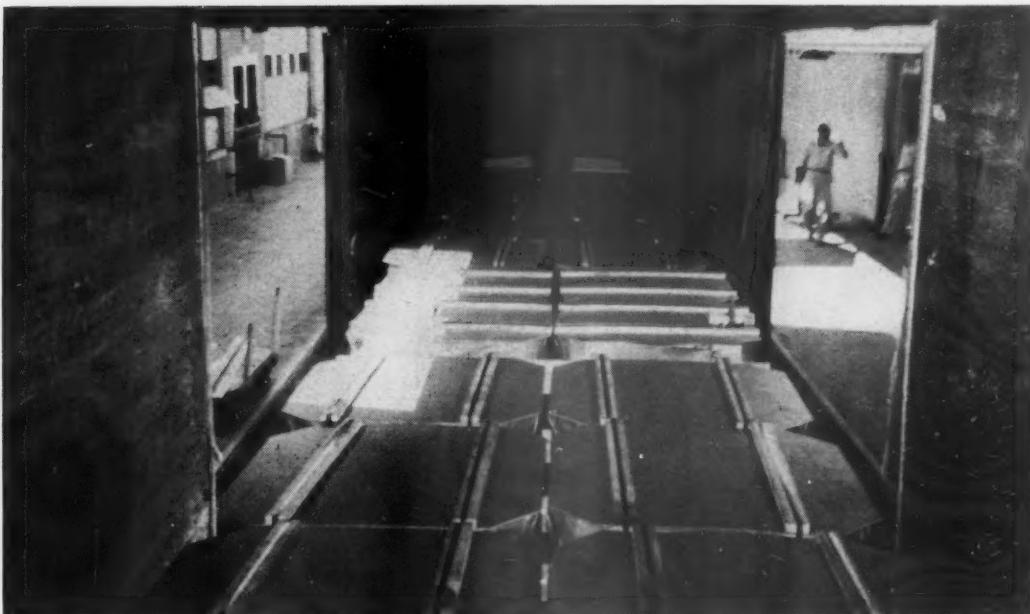
The workout and adoption of a sound new national transportation policy and practice naturally is a slow process. It is going to take time. In the interim, we must allow our transportation agencies to operate profitably enough to maintain the kind of transportation system our economy and our security require. Nobody is in better position to see that this is done than are we industrial traffic executives who represent the actual users of transportation services. It's just another part of our new responsibility!

But it is not intended that this shall be one-sided. In return for this support we have a perfect right to expect—or even to demand—that the transportation agencies get busy on the correction of their own internal weaknesses, and do those things so essential to putting their own houses in order.

Proper management of industrial traffic affairs now requires that we industrial traffic executives intensify our interest in these problems, and keep busy on them—to whatever extent, large or small, that our managements are willing to support—in the selfish interest of their own businesses and the national economy and security of this nation as a whole.

We must remember that the more the appropriations of public funds cause diversion of traffic from the railroads, the more they divert from them the earnings necessary to effect improvements and economies in service. I am not here to protect the railroads alone, but I do say that the inevitable ultimate result of this subsidy process is plain. It will ultimately drive our railroads into government ownership; and they will drag along with them all other carriers. Then all appropriations and expenditures for transportation will be made by politicians for political reasons, and we shippers will have lost our place in the picture.

Surely there can be no question but that industrial traffic management does have a new responsibility.



Except at the doorway, two rows of palletized packages are loaded in the longitudinal center of the car, with equal spaces between pallets and side walls

How Palletized Load Prevents Damage

By W. L. EUBANK

Superintendent Freight Claim Prevention
Southern Railway

A new loading method, devised by the claim prevention department of the Southern, engineers of the Freight Loading and Container Section of the Association of American Railroads, and the shipper and receiver involved, has prevented damage to shipments of cigarette paper, as well as reducing the consignee's expense in unloading and warehousing.

Formerly, these shipments, consisting of bobbins of cigarette paper, approximately 20 in. in diameter, were packed in fiberboard containers, 10 bobbins to the container, and the containers were loaded in the car individually. However, one cigarette manufacturer proposed to the shipper, the Ecusta Paper Corporation, Pisgah Forest, N. C., that the containers be shipped on pallets. The shipper in turn called on the Southern to design a pallet and a loading method. This was done, and test shipments worked out well. The same consignee then proposed that the paper be shipped minus the carton, using pallets. The pallet load was to be four columns of 50 bobbins each, wrapped in Kraft and laminated paper, and strapped to a 41-in. by 41-in. single-face pallet. The Southern's job was to work out a loading method which would get the shipments to destination in safety.

After some experimentation, a satisfactory method of loading was developed. Two rows of palletized packages are loaded in the longitudinal center of the car, beginning at the end, with equal spaces between the pallets and both side walls. Pallet runners are lengthwise of the car. Cross pieces are nailed to the front end of pallet runners and 1-in. by 4-in. side blocking is nailed to the floor alongside the pallet runners so as to avoid tipping and side shift of the pallets. At the doorway, in order to facilitate handling by fork lift trucks, four pallets are loaded with runners crosswise of the car. This makes it necessary

to nail wooden strips to the ends of the runners to prevent their collapsing. Then center gates are constructed of substantial material and applied in the doorway area.

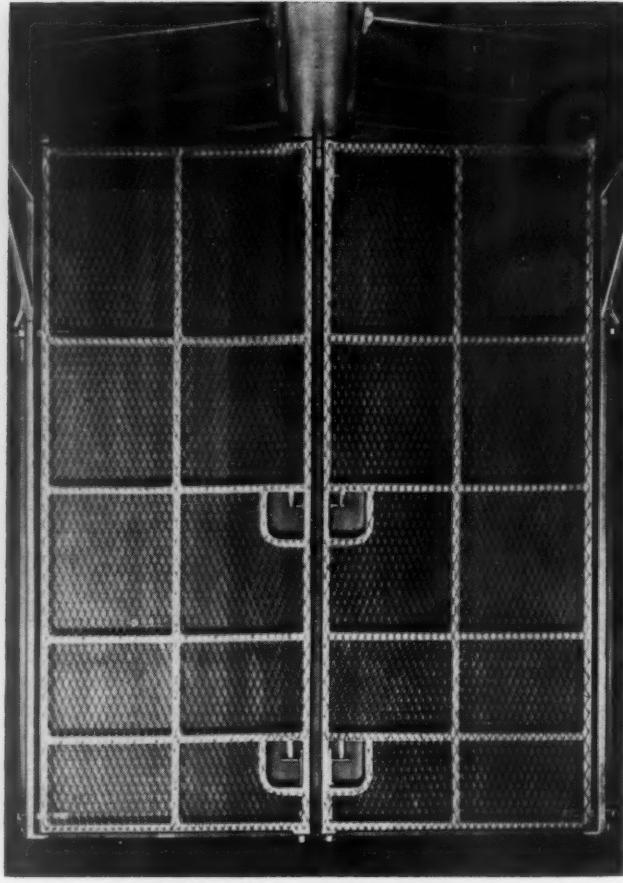
W. R. Altice, one of the Southern's loading supervisors, and engineers of the Freight Loading and Container Sections were responsible for devising this loading method, which has proved very successful.



Strips are nailed to runners of pallets in the doorway, as well as those on pallets in ends of car. The center gate is made of 2-in. by 4-in. and 2-in. by 6-in. lumber. Strips on ends of pallets are easily removed by the consignee for handling by fork trucks



The gates ready to be closed on partial load



The steel gates locked in the end of the car

No Loose Parts in Pullman-Standard Compartmentizer

A freight-car bulkheading device, announced and pictured in the April 2 *Railway Age*, page 74, designed to minimize damage to goods in transit by preventing the shifting of loads—with particular reference to stop-off carlot shipments and l.c.l. loads—is now being made and marketed by the Pullman-Standard Car Manufacturing Company, Chicago. The device, called a Compartmentizer, consists of adjustable steel gates—two or more pairs to a freight car—which are locked in place at ceiling, wall and floor. The gate frames are of pressed-steel sections and are covered on both sides with expanded metal welded in place. They can be placed in service position at three-inch intervals to divide the car into three or more compartments. The number of freight compartments in any car will depend on the number of gates installed.

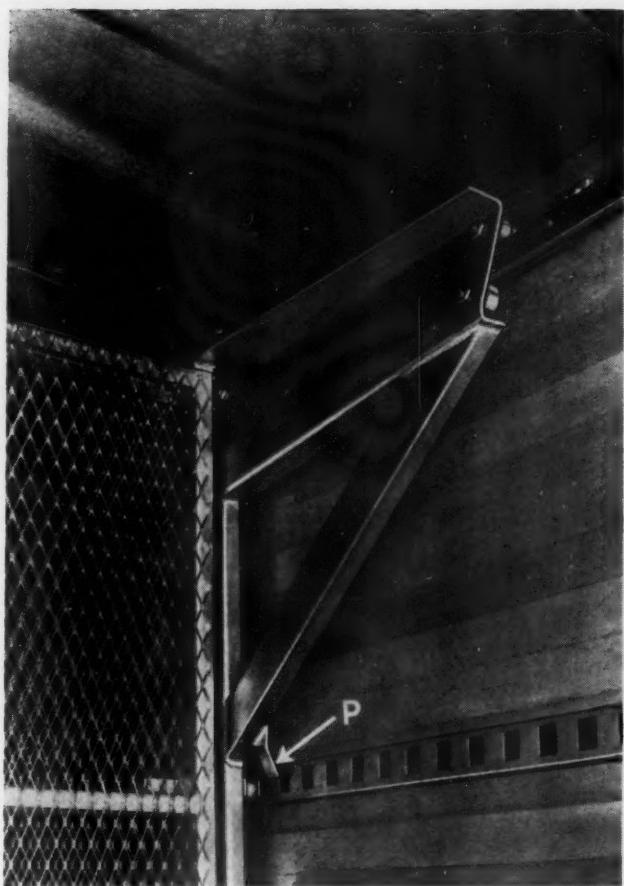
Adaptable to existing as well as new railroad box and refrigerator cars, the Compartmentizer has been designed so that the protective steel gates, when not in use, may be stored in a small place at either end of the car, thus avoiding the need of designating the cars using the device

as special-purpose cars. Each gate is hinged top and bottom to a trolley running the full length of the car, and remains in a vertical position whether it is closed, partially open, or in an open position folded against the side wall. When a gate is closed, locking bars attached to its hinge side engage slots in the two side-wall keeper plates, which serve to secure and draw the gate against the load. When the two gates are firmly closed the lower manually operated locking bars engage slots in the hat-section-keeper plate in the floor, and the upper bars engage corresponding slots in the ceiling keeper plate.

Diflers from Other Load Retainers

The Compartmentizer differs from most lading retaining devices in that there are no loose parts to lose, and to require removal or installation, thus making possible reduced time and labor cost in loading and more efficient car use. The possibility of injury to employees and damage to lading also is minimized.

It is anticipated by Pullman-Standard that the Com-



The suspension trolley with position indicator P



Manually operated lower locking bar

partmentizer will aid railroads in meeting competition—one important factor being the elimination of dunnage expense. The Compartmentizer also provides sealed compartments for partial shipments with less possibility of damage and loss of lading by theft. They are made tamper-proof by the use of conventional box-car seals. The gates are easily moved and locked in place by one man. They may be folded out of the way against the side walls of the car during loading and unloading, so as not to interfere with freight-handling equipment, and can be stored and locked in the ends of the car.

Application to Stop-Offs

A special field for the Compartmentizer is seen in the stop-off car. Use of this privilege is growing, the effect, many observers feel, being to keep on the rails a type of business which otherwise would go to trucks. The stop-off car gives the shipper the benefit of the carload rate (plus stop-off charge), while at the same time it enables him to consign goods in smaller lots than carload minima and perform, in a sense, his own pooling.

The stop-off car commonly is a breeder of damage to lading, because the intermediate consignee frequently fails to level off the load and rebrace the lading for the portion of the journey beyond his unloading dock. Satisfactory claims experience with stop-off cars can be obtained when efficient means are employed to segregate ladings for the several consignees.



The locking bar which engages a slot in the side-wall keeper plate when the gate is closed



Left—At rail-truck transfer points, the Milwaukee has arranged its stations so as to expedite the handling of transfer freight, as at this freight station at Green Bay, Wis. Here two rail sidings, which held three cars each, were removed from the area where the truck now stands. This space can now be used to spot ten semi-trailers. A concrete strip is provided for holding the dolly wheels of parked semi-trailers. On the opposite side of the platform there are two tracks, each holding ten cars. Similar arrangements were made at other stations, although in some cases the introduction of truck service permitted reducing the size of the station platforms, thereby improving efficiency and reducing maintenance costs. In a few cases, special platforms had to be built. Facing page—The Milwaukee's auxiliary l.c.l. substituted truck service has, in addition to improving service at local stations, made possible improvement in through freight operations

How Versatile Trucks Solve Many L.C.L. Problems for the Milwaukee

The use of both a trucking subsidiary and contract truckers reduces costs, saves cars, expedites handling and wins new traffic

The auxiliary l.c.l. substituted truck service of the Chicago, Milwaukee, St. Paul & Pacific has more than paid for itself by the new business it has attracted to the rails, and by the retention of old business which was threatening to leave. Other material advantages which it has brought to many of the road's l.c.l. shippers and consignees in the way of faster, more frequent service with fewer claims for loss and damage are equally important, as is the reduction in l.c.l. handling costs which it has made possible. Further, the truck service has proved equal to a wide variety of tasks—such as moving 15,000-lb. machines from a shipper at a small station to a larger station where they can be more easily loaded and secured on railroad cars, or carrying perishables between local stations so as to improve utilization of refrigerator car services.

The service has proved so popular with shippers, and so economical and advantageous to the railroad, that the original 361 route-miles of company-operated truck service has been expanded to 1,607 route-miles. In addition, more than 1,200 route-miles of truck service are operated by certificated contract truckers and 165 route-miles by company stores trucks.

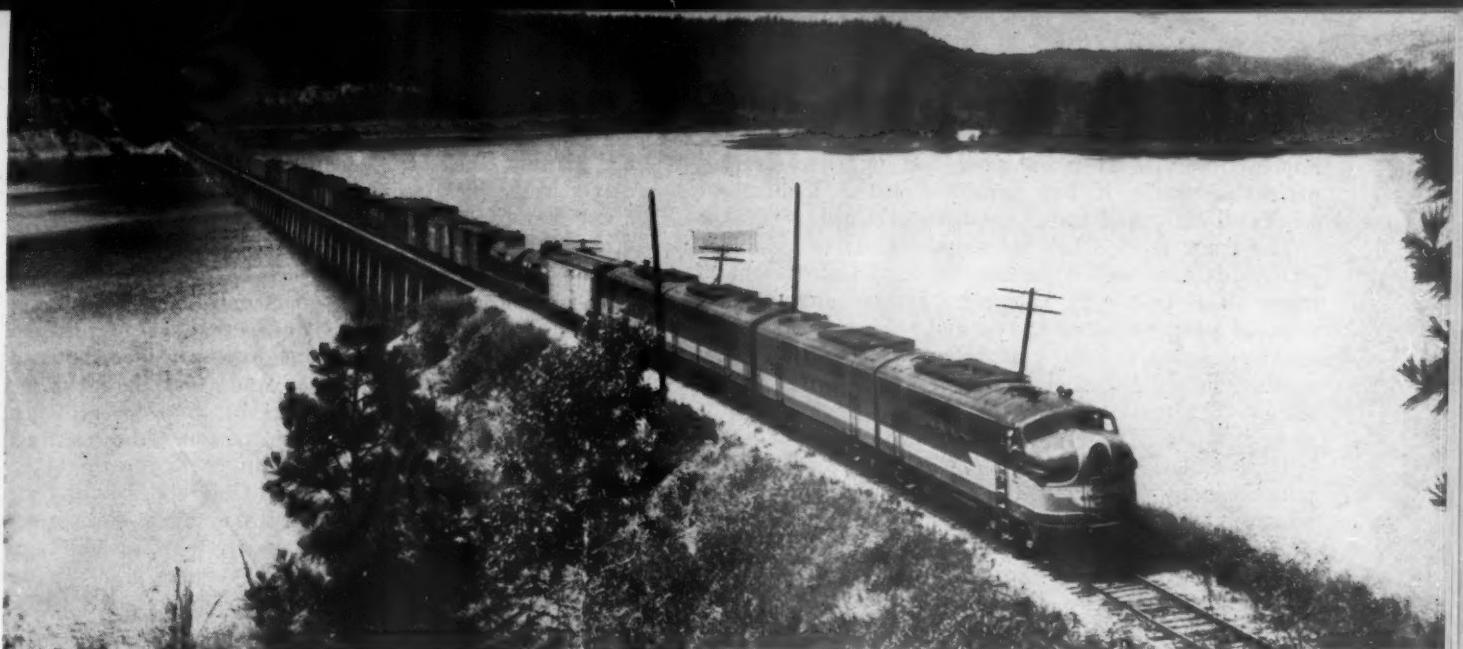
It has been the policy of the Milwaukee to use trucks wherever such use will make possible substantial improvement in service and reductions in cost for an ade-

quate volume of l.c.l. freight. Generally the road prefers to operate its own highway subsidiary wherever there is adequate volume and where certificates of public convenience and necessity can be obtained. In other cases, where traffic and other conditions justify, a system of using certificated contract truckers which was inaugurated in the early 1930's is brought into play.

The Milwaukee Motor Transport Company, the railroad's highway subsidiary, operates on certificates of public convenience and necessity granted by the Interstate Commerce Commission and by the interested state commissions. These certificates require, however, that the truck service be kept supplemental and auxiliary to rail service. All freight handled by the M.M.T.Co. moves on through railroad bills of lading at rail rates. Trucks may handle local freight between any two local points, except that on some routes traffic destined to a point beyond the designated break-bulk points (even though on an authorized truck route) must include a rail movement. Thus the trucks may handle l.c.l. freight between Green Bay and Menominee (see the map), but traffic from Menominee to, say, Plymouth, Wis., must move via rail from Green Bay to Plymouth.

Equipment Scarce

When the M.M.T.Co. received its operating certificate in December 1942 it was allowed the customary time to begin operations. At that time, however, trucks of any kind—new or used—were virtually unobtainable. Finally the company located three second-hand truck-tractors and seven van-type semitrailers. From the start of service on April 6, 1943, until new equipment could be obtained in 1947, this original second-hand equipment was used exclusively. The fleet has now grown to include 31 truck-tractors, 45 semitrailers, 1 straight van truck, and



3 light panel trucks for use as service cars. The semi-trailers include 32 28-ft. vans, 7 28-ft. partially open-topped vans, 2 24-ft. vans, and 4 22-ft. vans.

The three panel trucks are used by supervisors, and are equipped with all tools necessary for emergency on-the-road truck repairs.

The Transport Company has been fortunate in being able to employ experienced drivers. It has had a choice of experienced over-the-road drivers because it can offer its drivers regular and dependable pay days, almost 100 per cent "daylight" operations, and runs whereby drivers can be home every night or every day during rest periods. Such working conditions are not ordinarily obtainable in the trucking industry.

With very few exceptions all equipment terminates at key break-bulk points. Storage garages have been built out of portions of existing buildings on railroad property. For example, at La Crosse, Wis., the baggage room on the south side of the passenger station was made into a garage. At Green Bay, Wis., a portion of the steam locomotive back shop is used. In a few places, where adequate railroad property is not obtainable, storage space is rented.

There are 35 employees on the M.M.T.Co. payroll—including 31 drivers, 3 supervisors and 1 clerk—and a general manager. The general manager, Roy R. Misikins, is stationed at Green Bay, Wis., and reports to Walter L. Ennis, assistant to the traffic vice-president of the railroad at Chicago. In 1950 this force produced 831,142 truck-miles, of which 109,156 miles involved only passenger train "head-end" traffic such as mail, express, baggage, cream, and newspapers. L.c.l. tonnage amounted to 50,178 tons over-the-road between stations, with 4,856 tons of this traffic either being picked up or delivered directly at the shipper's or consignee's place of business. A total of 1,675 tons consisted of freight delivered to connecting railroads in "crosstown service."

Advantages to the Shipper

In general, the truck runs replace l.c.l. trap car service run once, twice or three times a week. Inasmuch as all truck runs are made five days a week, shippers are afforded greatly improved schedules. The trucks are permitted, with a few exceptions, to pick up from or deliver directly to shippers and consignees. Where the

services of a good local drayman are available, the Milwaukee has made a policy of using his services. In these cases, the freight usually is transferred directly from the over-the-road semitrailers to or from the local delivery truck. All of this reduces the amount of handling at local stations.

Shipments of large l.c.l. machinery have been greatly improved through the use of trucks. For example, in the small town of Kiel, Wis., the Milwaukee freight house has but one agent and one employee on duty, yet it must handle fairly frequent shipments of machines weighing 10 to 15 thousand pounds each. With truck service, these machines can be loaded directly into the truck at the plant—very frequently an open-topped trailer can be backed directly under the plant's overhead crane—and moved to a key point where there is adequate machinery and help available for handling, loading, and properly securing such heavy shipments.

Delivery of freight to connecting lines has been considerably speeded. For example an interline shipment from Green Bay destined via the Minneapolis, St. Paul & Sault Ste. Marie out of Neenah, Wis., can be loaded on the truck at Green Bay. At Neenah the driver will stop at the Milwaukee freighthouse to obtain a manifest, and then actually deliver the freight to the Soo warehouse for further movement.

Improved Service for Perishables

Much better service for l.c.l. perishables is now possible. Formerly this traffic had to move on a local trap car, operated on scheduled sailing dates only, to a transfer point where it would be loaded into a refrigerator car, which in turn ran only on certain schedule dates. As a result, through movements often were very slow. One result of this awkward arrangement was that cheese—which accounts for a substantial volume of l.c.l. perishable business in Wisconsin—left the railroad and began to move exclusively by truck. Now M.M.T.Co. trucks operating on a five day week schedule, for example, can take the cheese to the nearest town where there is a refrigerator car scheduled to leave immediately. The cheese shipping towns, such as Fond du Lac, Wis., Mayville, Woodland, and Beaver Dam, load their shipments on the trucks daily to be transferred to refrigerator cars at Portage, Mayville, or Milwaukee. Not only has this speeded and

improved service to the shipper, but by concentrating perishable traffic it has permitted better loading of scheduled cars. And traffic has been obtained.

The truck service has far surpassed its original objectives. It has speeded the movement of l.c.l. freight to many small points by as much as three days. It has released a large number of box and refrigerator cars for heavier loading and more important services. And it has resulted in a substantial reduction in loss and damage claims. But most significantly, it has resulted in the creation of substantial new l.c.l. traffic.

During the 1930's, before the Milwaukee Motor Transport Company was formed to conduct the railroad's highway freight handling operations, a practice was developed of handling l.c.l. freight in stores department trucks in areas where these trucks normally operated. The routes operated by the stores department, shown on the map, are conducted in essentially the same manner as the M.M.T.Co. operations, except that in some cases where l.c.l. traffic is light company materials are sometimes handled in the same truck.

Certificated Contract Carriers

Although there are many advantages in operating railroad-owned trucks for supplementary l.c.l. service, in many cases the Milwaukee has found it desirable to continue its wartime expedient of using contract truckers for this operation. This arrangement requires contracts with truckers who own the proper certificates to operate on the highways and in the towns where the railroad needs service. This arrangement costs somewhat more than for the railroad to operate its own trucking service. Further, the contract trucker is often in the difficult position of serving two competing masters: the railroad,

and his own trucking connections. Inasmuch as the truck driver is the ideal point of sales contact, the driver for a contract trucker may influence shippers to send more freight "all truck" than "all rail," inasmuch as he stands to gain more from the all-truck movement.

Nevertheless, contract arrangements do have definite economic advantages. In some cases they can be justified where there is insufficient volume to make railroad-owned trucking operations economic. And, too, they can be used to cover isolated segments of lines where truck service is desirable. For these reasons, the contract routes shown on the map are being maintained.

Unlike the Milwaukee's own truck operations, the only freight handled for the railroad by these contract carriers is freight in which actual rail transportation is involved. In all other respects the operation is similar to that of the M.M.T.Co., except that the break-bulk points used are determined by operating convenience rather than by legal designation.

In 1948 the use of trucks for handling mail, express, and other passenger train "head-end" traffic was tried on an experimental basis between Green Bay and Amberg, Wis., in order to save time of heavy through trains by eliminating stops to pick up and discharge small amounts of mail and express at minor stations. The experiment worked so satisfactorily that this type of service has been expanded to where 109,156 truck-miles, or 13 per cent of all the truck-miles operated by M.M.T.Co. in 1950, were in this type of service. Where mail and express were formerly handled in freight trains, by transferring this traffic to trucks it was possible to effect some improvements in operating performance.

In some areas trucks handle first class mail. A truck is scheduled to meet a passenger train at a principal station and transfer point. Here the truck driver receives pouched mail for several small intermediate towns from the Railway Mail Post Office clerk. The truck leaves immediately. In the meantime the train has gone ahead, and set out several more mail pouches at the next scheduled station stop, where they are picked up by the same truck and carried on to their destination. Inasmuch as the truck can handle the mail directly to and from the local post offices when necessary, the railroad can save the cost of local delivery. On the return trip, the truck leaves ahead of the train and collects pouched mail for delivery to the train at the transfer points.

This arrangement for handling "head-end" traffic has, for example, made it possible for the "Arrow," a heavy through train between Chicago and Sioux Falls-Omaha, to handle all mail and express traffic for local points on its 604-mile run and still maintain a terminal-to-terminal average speed of about 40 m.p.h.

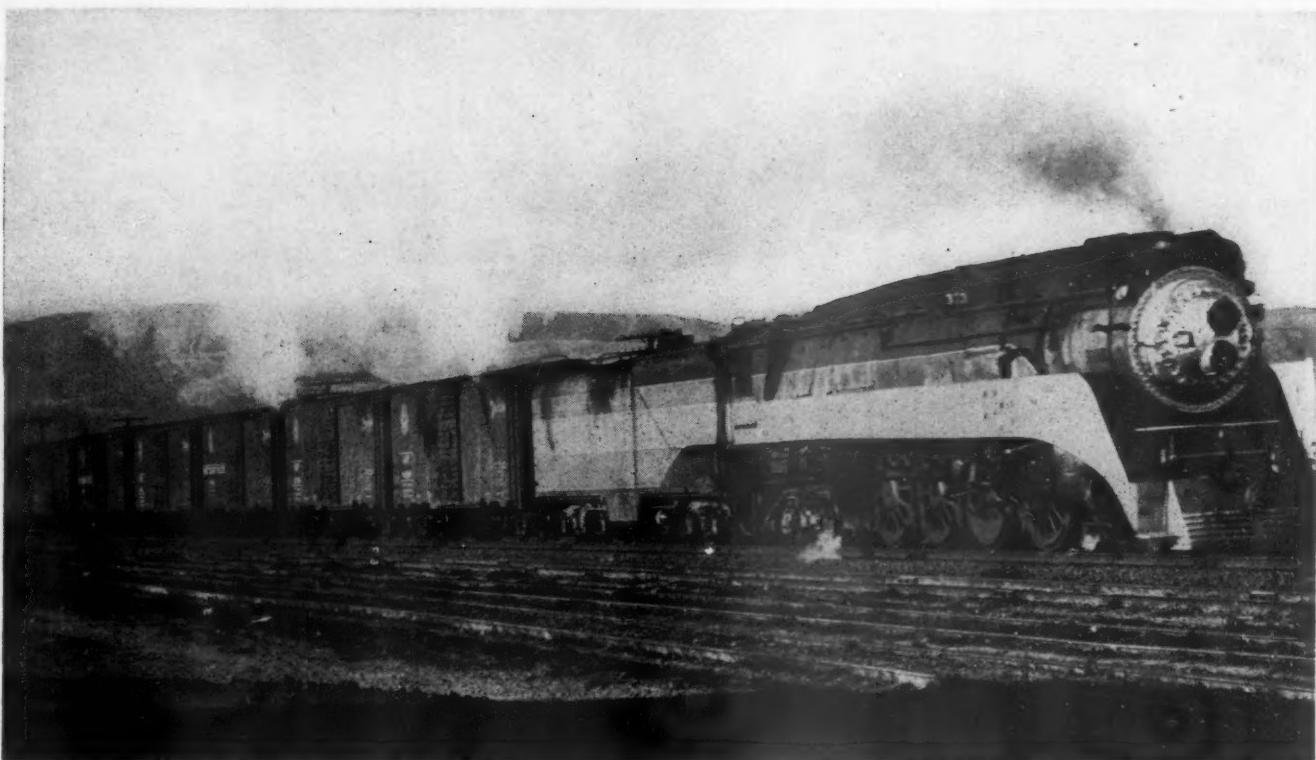
Contract truckers are also used to handle "head-end" traffic on routes where M.M.T.Co. does not operate.

Strike Relief

During the recent strike of railroad switchmen, the Milwaukee Motor Transport Company obtained temporary permission to by-pass its required key points and to handle freight to and from all points on its routes. As a result it was able to handle $\frac{1}{4}$ million pounds of strike-bound l.c.l. traffic. Much of this traffic was funnelled in and out of Milwaukee where a supervisory force managed to maintain a limited flow of rail traffic. This emergency operation enabled the Milwaukee to give many shippers limited service during the strike and to keep its l.c.l. from backlogging in the areas where truck service—either M.M.T.Co. or contract—was available.



Auxiliary truck routes cover the Milwaukee in areas where I.C.I. traffic is heaviest. In addition to the routes shown on this map, there are a few minor contract routes on the Pacific coast operating out of Seattle and Tacoma, Wash.



The S.P. had to devise new methods of billing to match the speed of its 13 fast "Overnights"

Fast Billing for Fast Freight

The 13 fast freight "Overnights" operated regularly by the Southern Pacific, with usefulness extended by 10,000 miles of coordinated truck routes of its subsidiary Pacific Motor Trucking Company, give the shipper of less-carload merchandise an expedited service tailored especially for his needs. The speedy and accurate handling of billing and other paper work in connection with this service is the result of more than 15 years' experience and experimentation, in which knotty problems—caused by high speed of the service—had to be licked. For instance: From San Francisco to Tucson, Ariz., 1,016 miles, an l.c.l. shipment can be accepted as late as 4:45 p.m. and loaded into the "Coast Merchandise East," leaving San Francisco at 7:40 p.m., and arriving in Los Angeles at 8:10 next morning. Here it is transferred to the "Arizona Overnight" for departure that evening and arrival in Tucson the following morning at 9:30.

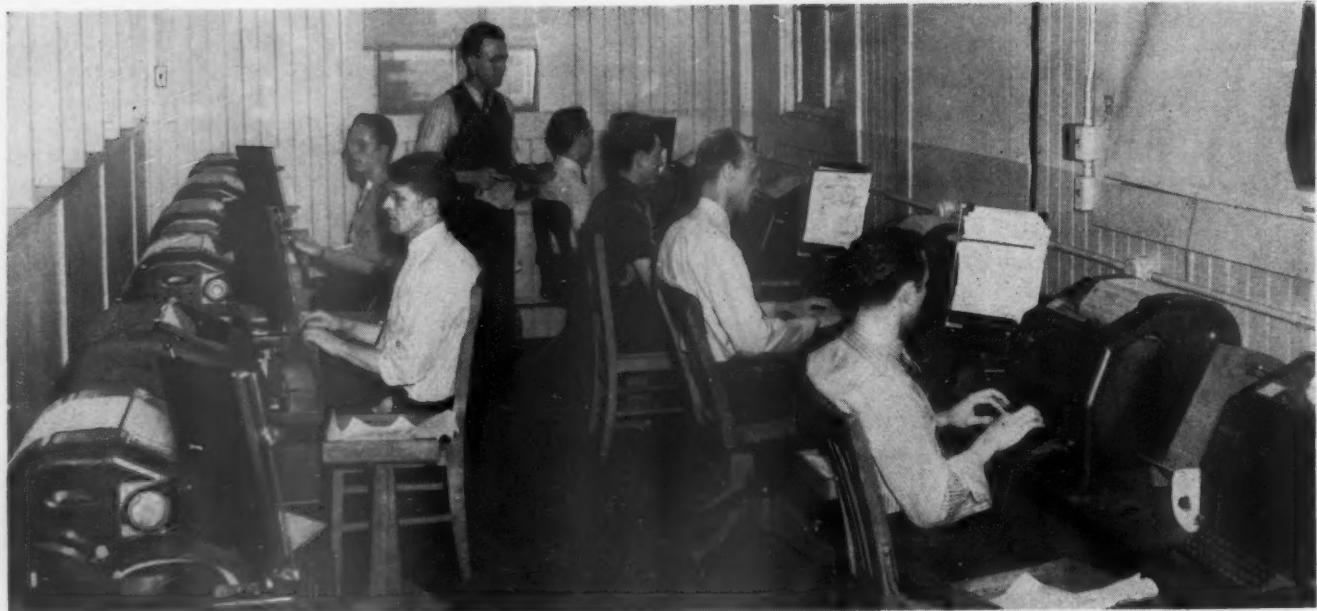
When overnight merchandise service between San Francisco and Los Angeles was inaugurated in October 1935, the S.P. found at once that ordinary waybill handling would not do. There was insufficient time to prepare the bills to permit forwarding with the trains. There was no other means to get them to destination by ordinary carrier before the freight itself arrived. The railroad, as an experiment, put bill clerks and their equipment in a baggage car right on the train, but this proved impractical. Shortly after the trains were established, teletypewriter communication of waybills between

How the Southern Pacific uses men and machines to make certain that "paper work" on freight via its fast "Overnights" keeps up with the wheels

By LEN MAYRISCH

Manager, Freight Protection,
Merchandise & Station Service
Southern Pacific Company





Pin-feed waybill forms make it possible for S.P. billing clerks to make and transmit by Teletype the exact number of copies of waybills required at both origin and destination. No duplication is required at either end

the freight agencies in the two terminal cities was tried, and proved the best answer.

As the number of special merchandise trains and the schedules of other freight trains were stepped up to provide overnight service to numerous other points, the use of Teletype kept pace. Southern Pacific found that it was not necessary to wire transmit waybills to every destination, since often they could be received at intermediate points and placed aboard other trains to be carried to destination. Where stations received a large number of waybills, the extra time gained by Teletype transmission was used in preliminary processing, which, performed prior to arrival of trains, speeded deliveries.

During World War II, it was necessary to suspend all high-speed merchandise trains to devote cars and locomotives to military purposes. It wasn't until four years later that the S.P. could resume expedited merchandise train operations. In postwar planning, careful consideration was given to still further improvement of billing methods—particularly to provide more copies at destination so as to speed freight handling there.

This latter goal was accomplished through the development of pin-feed waybill forms, which could be used in Teletypes equipped with sprocket-feed, steel platen attachments. Carbon paper now used in the forms is one-use carbon. The sprocket feed attachments guide and keep all copies of forms from slipping while in Teletypes.

With the increase in the number of copies, it was necessary to replace the hard rubber platens on Teletypes with steel platens, since the former absorbed some of the striking force of the keys and held back penetration of letters to all copies. With the new system, an operator at transmitting station types the exact number of copies required at origin and destination stations, dispensing entirely with duplicating operations formerly used.

An illustration shows waybill form L-700 used by the S.P. for interline shipments, "A" being used in the receiving agency's teletypewriter, while "B" is used in the transmitting agency's Teletype, providing a station record and necessary accounting copies.

Also shown is form L-708, for local shipments. "F" is used entirely by the receiving agency. "D" and "E" are used by the transmitting agency. If a shipment is moving on a collect basis, form 708-D is used, and, if moving on a prepaid basis, form 708-E is used, which constitutes the required station record and accounting copies, together with a freight bill.

How Routine Works

To give some idea how teletypewriters and the new pin-feed forms fit into the S.P.'s expedited less-carload program, here is a brief resume of handling:

When a shipper calls in, a truck serving his territory is notified to make the pickup. Number of pieces, markings, packages, etc., are carefully checked against the bill-of-lading, to insure against discrepancies. The bill-of-lading is then signed and the shipment is brought to the freight station.

When the truck arrives at the freight station, the shipment is again checked against the shipping order, for number of pieces, markings, weight, etc. Using the Veri-check system, freight is routed for loading in one of our special merchandise cars where it is properly stowed for movement to destination.

The shipping orders are picked up by special messengers and brought into the freight office. Cars are closed on a schedule and are moved on skeleton waybills to destination. During the peak season, cars are well on their way to destination before necessary processing of numerous shipping orders is commenced.

When shipping orders are received in the freight office, they are passed to the rate clerks who rate the various commodities moving. The shipping orders are then given to the comptometer operators, who extend the weight, rates and charges to apply. After this step is completed, the shipping orders are segregated by destination and given to the proper Teletype operator.

The latter further segregates the shipping orders into "prepaid" and "collect." Each Teletype is equipped with two setups. If the first group of shipping orders to be teletyped is moving on a "collect" basis, form 708-D is

FREIGHT TRAFFIC ISSUE

Pin-feed waybill forms, with interleaved carbons, are used with Teletypes equipped with sprocket-feed, steel platen attachments. A single typing operation makes sufficient copies for all purposes at both origin and destination. Form L-700 (right) is for interline shipments. Form L-708 (above) is for local freight

fed into the machine. After all "collect" shipping orders have been transmitted, form 708-D setup is removed and form 708-E is inserted and "prepaid" shipping orders are transmitted. As previously stated, it is not necessary to remove form 708-F from receiving agency's Teletype as all shipments, whether "collect" or "prepaid," use the same form at final station.

What Happens at Destination

Upon receipt of all information at destination on form 708-F, a delivery order number is assigned to each shipment and all waybills are listed in alphabetical order on manifest sheets for tracing purposes. Consignee's credit on collect shipments is checked. Those who are not bonded, and who are within the delivery zone and desire store-door delivery, are assigned a freight bill number, and all parts to the form are stamped "Collect on Delivery."

Form 708-D is then stripped by the clerks in the freight office. Parts 1, 6 and 7, which are the Waybill, Receipt for Delivery of Freight and the Agent's Receipt, are sent to the freight warehouse. On those bills on which freight charges are to be collected, the No. 3 and 4 copies, which are the Notice of Arrival of Freight and Freight Bill, are sent to the station platform. The No. 2 copy, or Station Record, is the agent's permanent record and never leaves the office. The No. 5 copy, Cashier's Record, is retained by the cashier as a check against proper remittance after collection.

On shipments waybilled "collect," and where consignees have complied with credit regulations, the No. 3 copy is mailed to advise amount of charges due. When remittance is made the No. 4 copy is received and mailed.

The destination warehouse force, upon receipt of its copies, segregates them according to car number and adds the number of the door in the station where the truck will be parked to effect delivery.

Immediately after the freight car has been spotted, the doors are opened and boards placed so as to load freight into the trucks. With this system of handling—which, without the aid of Teletypes, would not be pos-

1-47-006 PLACE SPECIAL SERVICE PASTERS HERE		L-70-A VALUABLE	
721—SOUTHERN PACIFIC COMPANY—721			
FREIGHT WAYBILL			
To be used for Single Consignments, Carload and Less Carload			
STOP FOR CAR INITIALS AND NUMBER	WEIGHT METHODS		LOADING OF CAR DATE WEIGHT BOOK NO.
	Carset	Rate	
TO RELACIONED TO	STATION		VALUATION No. <small>For Valuation, See Part 1, Freight Tariff, Rule and Forms Manual, Reference and Rating when Applying.</small>
	STATION	STATE	
Authority: ROUTE above Each Line as and Option in Route Below in Description of Waybill <small>See Part 1, Freight Tariff, Rule and Forms Manual, Reference and Rating when Applying.</small>			
CONTENTS AND ADDRESS <small>See Part 1, Freight Tariff, Rule and Forms Manual, Reference and Rating when Applying.</small>			
FINAL DESTINATION AND ADDITIONAL ROUTING <small>See Part 1, Freight Tariff, Rule and Forms Manual, Reference and Rating when Applying.</small>			
INSTRUCTIONS — <small>Specifying Items, Destination, Routing, Billing, Weighting, Etc. If need, Specify to whom Name Should be Changed.</small>			
ON L. C. L. TRAFFIC Transfer Books to be shown in this Space			
DESCRIPTION OF ARTICLES AND NAMES			
DESTINATION AGENT'S FREIGHT BILL NO.	WT.	WEIGHT	RATE
	AMOUNT OF C. O. D.	C. O. D.	NET
Outbound Agent Will Show Actual Charge in Space and Order Paid And			
First Junction	Second Junction	Third Junction	Fourth Junction
Do not call Agent W. H. Many Handbills on Route and Price Required			
<small>Add-on-Call Section Stamps and all Post Stamps to be placed on back of Waybill.</small>			

sible—the Southern Pacific is able to dispatch its first loaded delivery trucks from the station within 40 minutes after the cars have been spotted.

On "collect" shipments, the No. 1 copy of form 708-D is the origin point's station record. The No. 2 copy is used for accounting purposes. On "prepaid" shipments the Nos. 1 and 2 copies are also used for station record and accounting purposes. The No. 3 copy is the notice to shippers advising them of monies due. The No. 4 copy is the original freight bill; after freight charges are paid, it is received and mailed to the shipper. The No. 5 copy is used by the cashier to keep a record of daily remittances.

On interline shipments—both "collect" and "prepaid"—the origin agency uses form L-800-B which provides a station record, accounting and traffic department copies. The receiving agency uses form 700-A. Since the shipment is destined off-line and will be transferred only, no additional copies are required. The number of interline shipments waybilled is not sufficient to require a special form for use at origin station for prepaid shipments. These are expensed the following day.

The Southern Pacific is continually extending the use of teletypewriters where they can be used to advantage. Their use is not confined to the movement of less-carload freight, but is also applied at several stations to facilitate the movement of carload perishable freight. Waybills not prepared sufficiently in advance of the time the car is ready for movement are wire transmitted from origin stations to another station in the direction the cars are moving. At the latter point, the waybills are associated with cars. Thus, precious time is gained.

The use of teletypewriters and pin-feed forms has been a valuable aid in providing fast freight service. The general subject of best possible handling is under constant study. The Southern Pacific hopes to develop further improvements and to extend their use.



1 At the left side of the Teletype in the right foreground is the tape which is cut as the waybill information is typed

Shipments Reach Customers Without Delay Because...

Modern Office Machines Speed P. R. R. Freight Billing



By J. L. WEBB
Manager Stations and
Motor Service, Pennsylvania

**Punch cards tied
in with Teletype
—Teletype gets
waybill informa-
tion to destina-
tion quickly and
punch cards
make statements
to patrons**

The Pennsylvania for many years has strongly advocated the zone station plan, which provides for concentration of the station clerical work (for outlying stations) to the maximum extent possible. At a zone station, where there is a large volume of work, the use of modern types of equipment to prepare necessary docu-

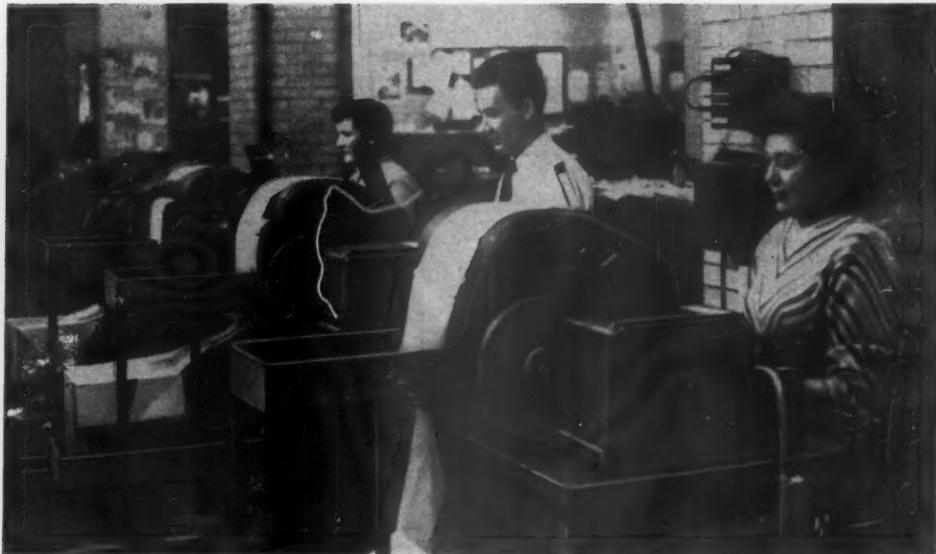
ments results in reducing the typing expense at smaller points. A case in point is the mechanical reproduction of freight bills, which is done by a machine which by light penetration copies the waybill information to sensitized paper. (*Railway Age*, September 17, 1949, page 90.)

The density of passenger traffic on the Pennsylvania, particularly on the eastern end of the railroad, has enabled us to have fast and convenient transportation of documents between stations. But, due to (1) the speed-up in the handling of l.c.l. traffic, which is a part of our Keystone Merchandise Service program, established January 1, 1950; and (2) the continuous expansion of the zone station plan, situations constantly arise where even movement of waybills by passenger train can result in freight arriving at destination ahead of documents. This can mean delay in the unloading of cars and delivery of traffic to consignees. To meet this situation, the Teletyping of waybill information has been established.

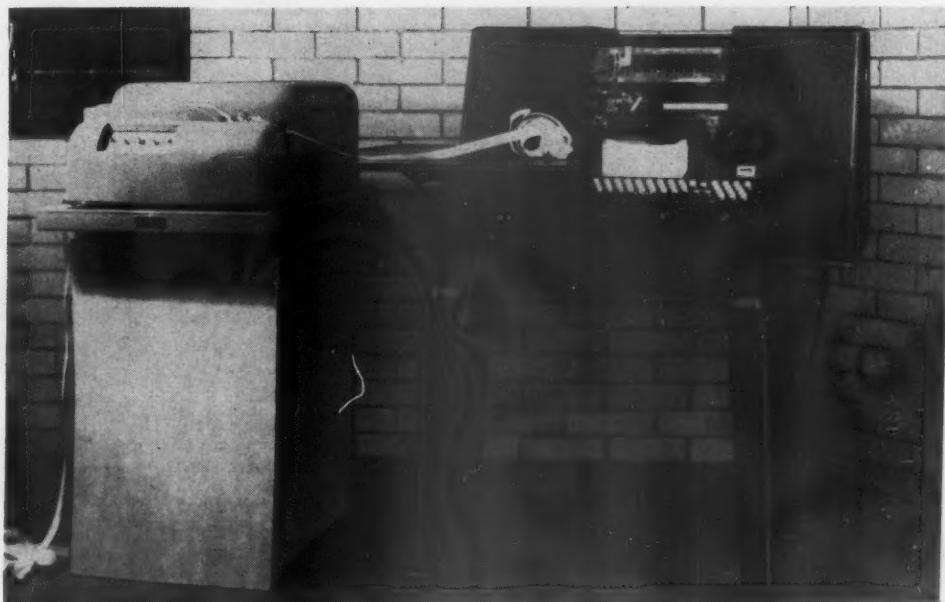
For the past several months the Pennsylvania has had in effect at its Philadelphia Consolidated Freight Agency, on an experimental basis, a system of Teletyping waybill information between that station and Baltimore. The system will be expanded to handle similar work on other parts of the railroad.

As the waybills covering freight destined for Baltimore reach the Philadelphia Consolidated Office to be translated into freight bills, the waybill information is Tele-typed and a freight bill and a copy are produced at Philadelphia. Simultaneously, similar information is reproduced at Baltimore. This provides the Baltimore agency with working forms with which to transact its business.

2 Three Teletype machines in operation, with continuous fanfold forms (freight bills) going into receptacles



3 After a tape has been cut it is run through the unit at left, which senses the holes in the tape, setting up impulses which activate the machine at right which punches the waybill information into the cards



In the meantime, as the Teletype at Philadelphia is making the freight bill, a part of the information on the waybill is cut into a tape. This information generally is only the patron's code number, waybill or car number, and the amount of the freight charges. This tape then is run through a converter, which decodes the information and activates a card punch, which in turn produces a punch card bearing this information. This punch card is the basis for all of our station accounting work.

After the billing has been done, and cards punched, for all the shipments in one car, cards are given to the tabulating section, where they are run through machines and the total charges for freight in that car are established. As a check, an adding machine operator establishes a similar total, from the waybills themselves. Then comparison is made between totals on the adding machine tape and those made by the tabulator. If the two are in balance, the operator goes on to the next group of waybills and cards. After all have been processed, the station "made" report for the day is established.

While this description is confined to the process of

handling waybills forwarded, there is little difference between the handling of inbound and outbound bills. At present cards are punched manually from the inbound bills; this procedure soon will be changed, we expect.

After the "made" and "received" reports are tabulated for the auditor of freight traffic, all cards (inbound and outbound) are mechanically resorted by station and patron code number and run through the tabulator, which prints at a speed of 100 lines per minute, to make a control sheet. The controls of this machine are so set up that separate totals are made for each station (including Baltimore) for which Philadelphia does billing, as well as a grand total which balances with the total of "made" and "received" statements.

Master header cards are then paired with the detail cards and tabulated to make statement of each patron's bills, which is known as ledger card (three copies). This ledger card comprehends all of the freight bills due by each patron, each day, and when mailed to the customer, by the Philadelphia office, has attached to

FREIGHT BILL
FOR CHARGES ON ARTICLES TRANSPORTED
MAKE CHECK PAYABLE TO THE PENNSYLVANIA RAILROAD COMPANY

FREIGHT BILL DATE APRIL 24 1951		CAR INITIAL AND NUMBER PRR 28767		DATE APRIL 20 1951 GLP		WAYBILL NO. 38982	
TO BALTIMORE MD		STATE		FROM 945 FEDERAL ST PHILADELPHIA PA		STATE	
CONSIGNEE AND ADDRESS YOUNG ANILINE WORKS INC 2701 BOSTON ST		(CODE) 48983		FULL NAME OF SHIPPER AND ADDRESS PHILADELPHIA ELECTRIC CO 10TH AND CHESTNUT STS		(CODE) 16358	
DESCRIPTION OF ARTICLES AND MARKS		WEIGHT	RATE	FREIGHT	ADVANCES	PREPAID	
1 CS HARDWARE		100	MIN	2.08			
PATRON NO. CAR OR W/B 48983 38982		FRT CHARGE 208 LR4	CODE <input checked="" type="checkbox"/>	TAX 4	AMOUNT CODs	FEES \$	TOTAL \$ 2.08
Exceptions to freight charges or condition of loading should be presented promptly to Freight Agent. Notice of loss or damage MUST be given to Freight Agent within fifteen days after delivery of the shipment.							
RECEIVED PAYMENT FOR THE COMPANY, 195 FREIGHT AGENT							
AMOUNT TO BE PAID							
THE PENNSYLVANIA RAILROAD							

4 Teletyped freight bill. Philadelphia makes a freight bill and copy while the Baltimore form is a four-part one, marginally punched, with one time carbon interleaved, consisting of two freight bill copies, arrival notice and delivery receipt

P-16410

48983 YOUNG ANILINE WORKS INC							
PATRON NO. WAYBILL NO. FREIGHT CHARGE CODE				TAX		PREPAID BT	
PATRON NO. NAME							
PATRON NO. WAYBILL NO. WEIGHT MO. DAY YR							
2701 BOSTON ST 24 BALTIMORE MD							
Punched in U.S.A. Patented P-16410							
STREET AND ADDRESS				CITY AND STATE		PATRON NO.	

5 Header card which is used in preparing ledger card or "invoice" to patron

P-16410

38982 208 LR4							
PATRON NO. WAYBILL NO. FREIGHT CHARGE CODE				TAX		PREPAID BT	
PATRON NO. NAME							
PATRON NO. WAYBILL NO. WEIGHT MO. DAY YR							
P-16410							
STREET AND ADDRESS				CITY AND STATE		PATRON NO.	

6 Detail card punched to show waybill information contained in area circled at bottom of freight bill

it all of the freight bills it covers. Baltimore (and all other stations in the consolidation) then is furnished with a copy of the ledger card, and the agent's account is charged with the full amount of all of the bills mailed to his patrons.

The next step in the program is to supply the Baltimore agency with a tabulator and sorter, in order that it may be furnished with the punched cards made by Philadelphia.

The collection department at Baltimore then will be able to use these cards to list mechanically its bills "paid" daily and balance his unsettled bills through the medium of the punch cards rather than take them off manually from the copies of the ledger cards.

The Teletype system of billing tied in with the punch-card accounting provides a very simple method of deriving many benefits, i.e., reporting, billing, charging, collecting and recording from one manual operation.



Wearing cleats for leverage against his gasoline-driven ice saw and the blasting Wyoming wind, this workman cuts out a 70,000-lb. ice "raft" along lines previously scored on the frozen surface by another machine



Using a long hook, a workman drags a scored ice raft to the storage house. When cut, each cake in this raft will weigh about 225 lb. The depth of the ice varies, but P.F.E. tries to harvest when thickness equals size of surface scores



Breaking a raft into individual cakes before floating them through the canal to the conveyor belt which will feed them into the storage house. Some 2,500 to 3,000 tons of ice may be harvested and stored in an eight-hour day by 200 workmen. Two separate harvests were undertaken each year. Each required about three weeks to complete



Sliding down from the conveyor and into the storage house where the cakes will await warm weather and the yawning bunkers of thousands of "reefers." There are 16 rooms in the storage house, each of which holds 4,300 tons. The remainder of the season's harvest—80,000 tons—is stacked outside the house

"Operation Ice Cube"—Final Chapter

New \$1 million artificial ice plant for Pacific Fruit Express dooms natural ice "crop"

The familiar yellow refrigerator cars of the Pacific Fruit Express (owned jointly by the Union Pacific and the Southern Pacific) carry a heavy volume of western-grown fruits and vegetables to consumer markets in the East. For nearly 30 years, those cars reiced at Laramie, Wyo., on the U.P., have been bunkered with natural ice, harvested twice yearly from a 20-acre artificial pond.

Although Mother Nature has always manufactured the pond ice without charge, the mounting cost of harvesting that crop, plus the inadequate capacity of the Laramie pond, influenced P.F.E. to build a new mechanized artificial ice plant, which will take over the job next fall. The plant will be located at Laramie so that present extensive storage and car icing facilities—which handle some 70,000 refrigerator cars annually—may remain in use. (See *Railway Age*, March 5, page 78, for details about this new plant.)

The illustrations show P.F.E.'s last natural ice harvest. They portray a seldom-seen aspect of the railroad industry's "back stage" efforts that go into maintaining—and improving—the country's standard of living.



Entire liquid fuel situation considered in relation to locomotive requirements—Effect of emergency conditions on quality outlined

By THOMAS L. APJOHN
Assistant director, Refining Division,
Petroleum Administration for Defense

in an emergency **WHAT ABOUT DIESEL FUELS?**

This subject of railroad diesel fuel supply and quality trends in case of a national emergency has many ramifications. Many factors influence such trends. It is well known that not only do military requirements on the various petroleum products change with time and circumstances, but also do quality requirements. This, I believe, is normal under emergency conditions. It is to be expected if we are to meet the multitude of conditions under which the Armed Services may be called upon to fight.

The total demand for petroleum products has increased at such a rapid rate over the past 10 years that the industry has been taxed to provide expanded facilities and additional crude supplies. Contrary to predictions at the end of the last war, the rate of increase did not drop off. Today we are faced with the added demands of the defense program which will increase rapidly over a short period as the military services build up their strength. Every effort will, of course, be made to satisfy both the military and civilian demands. The quality of some products may suffer to extend supplies as much as possible, but this seems unlikely under the present mobilization conditions except on relatively rare

occasions. The presently proposed order reducing tetraethyl lead usage in motor gasoline is a case in point. Under an all-out emergency situation, in contrast to current mobilization activities, both quantity and quality of many products would be reduced. Plans now being formulated by the Petroleum Administration for Defense are pointed toward having the industry in a position where these reductions will be as small as possible and not be more extensive than were encountered in the last war. With far less surplus in refining capacity than existed in 1941, and with prospective military demands substantially higher, this is not going to be a simple job.

This discussion is not so concerned with the availability of railroad diesel fuels. Railroads are essential and will be supplied. Rather it is concerned with the quality of available product. Since military requirements for jet fuel, diesel fuel oil, motor and aviation gasoline, will appreciably affect distillate quality and quantity, I would like first to review recent trends in distillate consumption as well as trends in processing which bear on distillate product quality. With the addition of the military requirements, we shall then have the total demand picture from which some measure of future railroad diesel fuel quality may be drawn. Lastly, lubricants have a part to play and I shall cover this phase briefly.

This article is an abstract of an address before a railroad conference sponsored at Chicago by the Association of American Railroads.

Petroleum product consumption has increased over the past 10 years from a daily consumption of $3\frac{1}{2}$ million barrels in 1940 to about 6 million in 1950. Forecasts, not including the newly instituted defense program, show continued, though not as rapid, increases over the next 10 years. Over the past 10-year period motor gasoline consumption rose from 1.6 million barrels a day to 2.6 million. Distillate consumption showed a somewhat greater increase. Consumption over the period 1940 to 1953 is shown in one of the graphs. The figures for 1950 and 1953 are estimates prepared before the Korean war began. The figures shown do not include kerosene.

Total distillate consumption rose from about 500,000 barrels per day to about 1,050,000 in 1950, or slightly more than double. The rate of increase to 1953 is somewhat lower because natural gas will be available from pipe lines being constructed and projected for construction during the coming three years to supplement heating-oil requirements. Home heating-oil consumption rose from 315,000 barrels per day in 1940 to 510,000 barrels in 1950—not quite double. Again because of natural gas, the 1953 estimate shows a lower rate of increase. Diesel fuel consumption, particularly for the railroads, shows the greatest rate of increase. Total diesel fuel consumption shows a four-fold increase from 1940 to 1950. Projected consumption places it at about 365,000 barrels per day in 1953, or a five-fold increase over the 1940 level. Railroad diesel fuel consumption, of course, is largely responsible for this increase. The increase amounts to 25 times the 1940 consumption in 1950 with estimates placing it at 40 times in 1953.

The ratio of diesel fuel consumption in relation to heating oil is shown in the chart entitled Distillate Product Distribution. Here we see the percentage of the total distillate consumed for home heating, all diesel usage, and railroad diesel in particular. With the exception of the war years, the percentage of total distillate consumed for home heating has remained fairly constant—roughly 60. Total diesel fuel has shown a continuous rise reaching an estimated 31 per cent of total distillate in 1953. From a level of about one per cent of total distillate in 1940, railroad diesel increases to an estimated 18 per cent in 1953.

These figures begin to show the pressure on the industry over the past 10-year period. Processing changes have been made to increase yields to meet demands for gasolines and distillates. A measure of these changes is shown in the chart dividing a barrel of crude into the principal products. While gasoline yield remained practically constant during the 1940-1950 period, demand for distillate was increasing. The yield of residual fuel over the same period shows a corresponding decrease, and more distillate was made available essentially by digging further into residual stocks. Under normal peacetime conditions, modernization of refinery equipment as well as installation of new processes would be expected further to increase the yield of gasoline as well as distillates through further conversion of residual stocks.

Effect on Refining Methods

At the same time that demands for all products were increasing, higher gasoline anti-knock quality was also required. This trend assisted in the promotion of the installation of catalytic cracking processes which give high yields of high octane number gasoline without the production of low value heavy fuel oil which is always a product of the older thermal cracking processes. Although introduced in 1936, catalytic cracking did not

become an appreciable factor in gasoline production until the last war. During the war period the bulk of catalytically cracked gasoline went into the production of Grade 100/130 aviation fuel. At the end of the war 1,200,000 barrels of catalytic cracking capacity had been installed. Over 2,000,000 barrels of capacity are available today. Thermal cracking capacity has remained at a practically constant level over the past five years. With the change in trend toward catalytic processing there have been corresponding changes in the composition and character of most distillates. The proportion of straight-run product in total distillate fuel is rapidly decreasing since the straight-run distillates provide ideal charging stock for catalytic cracking. The proportion of thermally cracked distillate fractions is also decreasing as a result of the substitution of catalytic cracking for thermal cracking.

The recent Bureau of Mines survey of railroad diesel fuels shows some of this trend. The table shows the average characteristics, as well as maximum and minimum values of fuels offered for railroad use. It will be seen from the average characteristics of the fuels offered that a number of products are still essentially straight-run distillates representing a specifically segregated fuel, of relatively low availability, intended for diesel use only. A number of products, however, represent heating oil stocks and the characteristics, notably cetane number, reflect the inclusion of catalytically cracked distillates. Diesel operators and engine builders have, of course, recognized the advantages of using the more readily available, lower cost, heating oils. As a result, engine manufacturers, and particularly builders of railroad diesel engines, have aimed design efforts toward utilizing the lower cetane number heating oils.

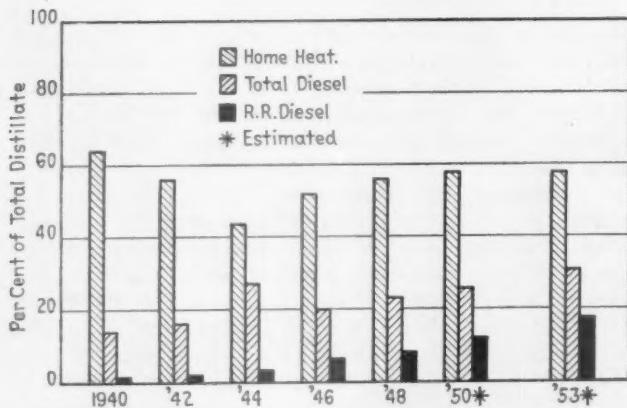
Quality Trends under Emergency Conditions

It is anticipated that military demand for all petroleum products, excluding aviation gasoline, may well be somewhat higher during any future emergency. Demand for aviation fuels including jet will be substantially higher. This may not necessarily mean that we shall have an appreciably greater air force in terms of planes and men. It does mean that we shall have more larger planes capable of flying greater distances. Most significant to the overall demand—and to the diesel fuel quality trend—is the continuing growth in the application of the turbine to aircraft propulsion.

Turbo-jet aircraft engines have a voracious appetite for fuel. Comparative fuel consumption data on a jet-powered plane and a reciprocating engine-powered plane, flying identical missions, will show that the former consumes nearly three volumes of fuel to the latter's one. Turbo-prop developments are resulting in substantially lower fuel consumption levels, but their military application is several years behind the turbo-jet.

Thus, with higher fuel consumption per unit on three counts—(1) larger airframes (more engines per unit), (2) longer missions, and (3) replacement of reciprocating engines with turbines—our World War II consumption of 600,000 barrels per day of aviation fuel should seem small in comparison.

During World War II, distillate fuel characteristics were affected to a degree by aircraft fuel production. It was primarily for the latter that catalytic cracking capacity increased from less than 250,000 to about 1,200,000 barrels per day during the war period. Catalytic cracking produced not only high quality base stocks for 100 octane number aviation gasoline blending but also a well balanced feed for alkylation plants. Simultaneously, the distillates produced were more aro-



The distribution, over a 13-year period, of home heating and diesel fuels, exclusive of kerosene

matic in nature—lower in gravity and cetane number for the same boiling range. At the same time, however, yields of the more desirable gasoline and middle distillates were increased by catalytic cracking over thermal cracking.

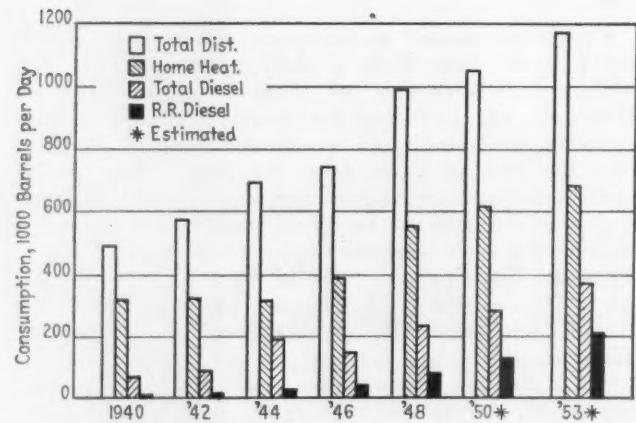
During any future emergency distillate fuel characteristics will be further affected by aircraft fuel production. We shall still have the effect of catalytic cracking. In addition, with the application of the current military specification, jet fuels will contain a substantial portion of components that normally go into kerosene, heating oils and diesel fuels. The chart of Product Distillation Ranges may help to illustrate this point. Here we have designated along the abscissa motor gasoline, aviation gasoline, jet fuel, kerosene, and diesel and heating oils. The ordinate is a temperature scale. The five blocks represent the boiling ranges of the five products. For aviation gasoline, we use components that boil in roughly three-fourths of the motor gasoline range. In jet fuel, as currently specified, we may use all of the components in the motor gasoline and kerosene boiling range and about one-half of the diesel fuel and heating oil range.

One effect of a high requirement for jet fuels is immediately obvious—a decrease in front-end volatility of diesel and heating oils. To maintain supply, it is also obvious that there will be a trend toward higher end points. The Bureau of Mines survey indicated an average 10 per cent distilled and end point of about 450 deg. F. and 640 deg. F. respectively for railroad diesel fuels. The trend during an emergency will undoubtedly be toward, but probably not all the way to, the 600 deg. F. 10 per cent point and 740 deg. F. end point indicated to be maximum.

With the higher distillation range will come a trend toward lower gravity, higher pour point, higher viscosity and higher sulphur content. Sulphur tends to concentrate in the heavier petroleum fractions. With increasing discoveries of so-called sweet crudes (relatively low sulphur content) it should not be anticipated that maximum sulphur content will increase appreciably above the 1 per cent which is now under investigation in railroad application. The overall average will, however, possibly be higher than the 0.28 per cent indicated in the Bureau of Mines survey.

However, A.P.I. (American Petroleum Institute) gravity and higher viscosity should pose no problems. Higher pour points will aggravate an already bothersome winter problem that exists in the northern part of the country.

Although cetane number generally increases with boiling range in the distillate class of products, it should



Consumption of distillates, in barrels per day, over a 13-year period (kerosene excluded)

be anticipated that during an emergency period the ignition quality of available fuels will probably drop. This will result from even more extensive catalytic cracking than now exists, with an increased distillate and gasoline yield at the expense of residual stocks. This trend is developing under normal—so-called peacetime—conditions. It may be accelerated during an emergency period through the installation of additional catalytic cracking facilities.

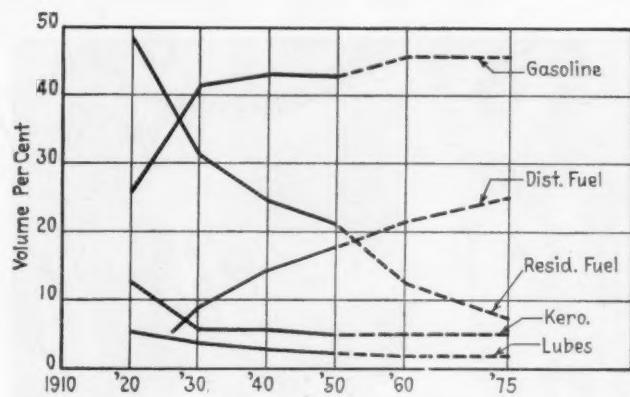
One might ask how this had to affect distillate fuel cetane number. Why not catalytically crack just the very heavy portions and leave the lower boiling distillates alone for the best heating oil and diesel fuel characteristics? Unfortunately, catalytic cracking facilities as currently constituted cannot handle 100 per cent residual stocks. As the ratio of residual charging stocks to distillate is increased, the capacity of presently available units decreases markedly. Thus, both processing aspects and economics dictate against the elimination or decreased use of distillate stocks as catalytic cracking charge stock.

Some significant changes may occur, therefore, in distillates that will find their way into diesel fuel applications. From the engine life and performance standpoints, the most significant of these would appear to be lower volatility, lower cetane number, possibly a higher average sulphur content, and also possibly greater fuel instability as evidenced by sediment formation. The precise effect of such changes on the engine cannot be described. Some experience has been gained in field tests which points to more deposit build-up and increased wear rates. More work covering various engine makes and types of operation is under way, however, to provide a more factual evaluation.

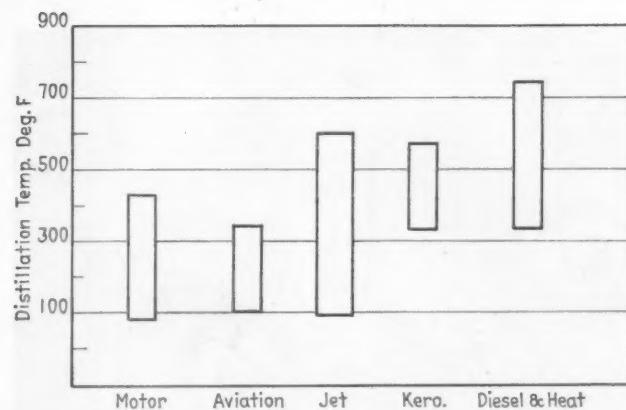
Added Function for Detergents

Assuming, for the time being, that more deposits and higher wear rates result from the use of such fuels, shorter overhaul life would be the penalty. Possibly more maintenance of injectors may result due to sediment formed from the less stable fuels. The latter problem may be susceptible to solution through increased filtration at storage points or by increased filtering capacity on the locomotive itself. The oil industry is, of course, already at work on this problem and additives which are coming into use may provide the stability needed without producing harmful effects in the diesel engine.

The means for combating increased deposits and wear appears to be through the use of higher detergent oils or "spiking" with detergent oils. Again sufficient positive



Percentage division of a barrel of crude oil between liquid fuels and lubricating oils



Distillation temperature ranges of various types of liquid fuels produced from petroleum

data are lacking but experimental field tests reported recently to the industry indicate that engines remained cleaner for longer periods of time when the detergent concentration of the crankcase oil was maintained at a level higher than normal. Reasoning from this, it would appear that the deleterious effects of the fuel might be overcome by such a route. Other information reported indicates detergents to be effective in combating wear resulting from higher sulphur fuels. Further work along this line certainly is indicated before it is established that, in solving one problem, another is not borrowed, such as detrimental ash accumulation.

Assuming the lubricant route looks promising, what about supplies of detergent additives?

The recent trend is toward MIL 2104 lubricants for military ground equipment. Navy requirements on oil stability in a number of applications are more stringent and will undoubtedly require greater detergent additive doses. Certain essential tractor and industrial diesel equipment require, according to their manufacturers, at least MIL 2104 quality if anything but the cream of diesel fuels is used and the most favorable operating encountered. Current demands for detergent additives are putting a strain on manufacturers equipment-wise and raw-material wise. Added requirements for railroad applications complicate the problem tremendously.

Will More Additives Be Available?

What are the prospects of increasing detergent additive production? Unfortunately, not too bright unless they can be pretty thoroughly justified. There are two factors involved that lead to that conclusion. Most of this class of additives are metal sulfonates, the manufacture of which requires alloys which are among the tightest of construction materials. Secondly, sulfonates require sulphur as a starting material. This element is among the tightest of basic chemical materials. I repeat—detergent additive supply is not going to be increased substantially unless it can be pretty thoroughly justified.

I would like to quote a conclusion I made to a group of refiners in Atlantic City last September when discussing refinery processing required in time of national emergency.

"Only one other product—as far as strict military significance is concerned—threatens to approach the importance of those already mentioned, and that is high cetane number diesel fuels. In this case, it is the absence of processing probably along with some amount of crude segregation that is of significance. There should be a

substantially higher essential demand than existed during the last war for the straight-run distillates from predominately paraffinic crudes that so well met diesel requirements. A large part of the demand will be for strictly military equipment. However, it seems wise to at least plan to meet the rapidly expanding demand for railroad locomotives with the same high quality product. This statement is made with full knowledge that development of the engines used in this service is keyed to domestic fuel oils, and great success has already been attained in this direction. Unfortunately, domestic fuel oils under a wartime economy are likely to bear little resemblance to those currently available. While they could be tolerated for household heating under such exigent circumstances, there would seem to be little point in forcing them into railroad equipment and jeopardizing such a vital activity as rail transportation."

That, frankly, is an excellent goal to seek, but admittedly not practical. This statement did serve, however, to put the refining segment of the petroleum industry on warning that it may not be possible to go too far down on railroad diesel fuel quality. I may be accused now of swinging too far to the other extreme. However, the quality characteristics that we have outlined that *may* exist are certainly possibilities and, I may say, distinct probabilities in certain areas of the country. However, volatility and lower cetane numbers are the certain trend unless refiners go to considerable expense and trouble to segregate and distribute stocks specifically for railroad use. Neither segregation nor distribution are simple during war.

It would seem advisable, therefore, that the engine builders, railroads and the petroleum industry continue the cooperative work that they have started, extending it where necessary to establish how fuels that may have to be used during an emergency can best be handled and consumed. It makes it easier for everyone concerned if sound data are available to define limiting fuel quality characteristics and lubricating oil requirements with variable fuel quality.

RAILROAD DIESEL FUELS IN USE

	Average	Maximum	Minimum
Gravity, deg. A.P.I.	36.9	45.0	30.7
Cetane No.	51.6	68.1	35.0
Sulphur, per cent	0.28	0.98	0.02
Carbon res.	0.088	0.30	0.00
Distillation:			
I.b.p., deg. F.	383	513	329
10 per cent rec., deg. F.	447	598	387
50 per cent rec., deg. F.	510	657	448
90 per cent rec., deg. F.	587	693	508
F.b.p., deg. F.	641	740	570



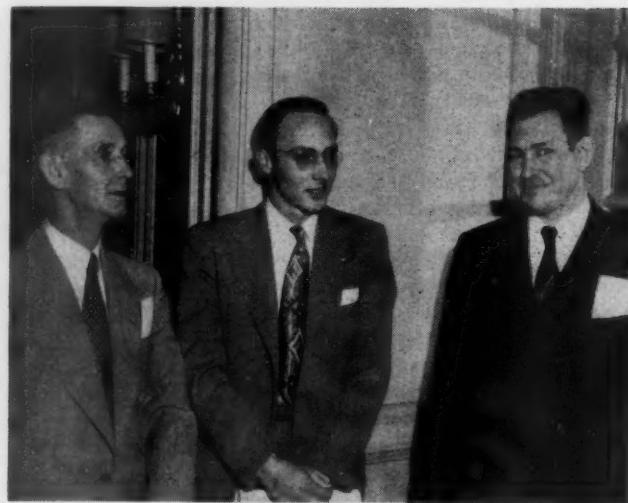
President F. W. Gottschalk (American Lumber & Treating Co.) is cheerful as he presides over the meeting during its final moments



P. R. Hicks, secretary-manager, Service Bureau, A.W.P.A., and J. A. Hall, director, Forest Products Laboratory, Madison, Wis., seem to be finding plenty to talk about



W. F. Dunn, Sr. (Sou.), M. G. Kirk (Pittsburgh Screw & Bolt Corp.), and Roy M. Edmonds (Ry. Tie Assn.) seem to have things in common



Three of the many Illinois Central representatives who attended the convention—J. W. Travelstead, B. L. McDaniel and G. B. Walker

Railway Men Active at A.W.P.A. Meeting

Benefits of preservative treatment of crossties and structural timbers get emphasis at association's forty-seventh annual convention held at Chicago

The value to the railway industry of the preservative treatment of wood, along with the necessity of proper treatment and of adhering to recognized specifications, were brought into sharp focus at the forty-seventh annual meeting of the American Wood-Preservers' Associa-

tion, held at the Stevens Hotel, Chicago, April 24-26. With a total of 670 members and guests present, attendance at the convention reached an all-time high. As usual, many railway men, present in the capacities both of timber treaters and of users of treated timber,



Seen here in a moment of levity are Carl Wingerson (Oliver Iron & Steel Corp.), A. S. Daniels (T. & N.O.) and C. H. Griggs (B. & O.)



President F. W. Gottschalk (left), seen in the company of J. S. Giddings (A.T. & S.F.), A. J. Loom (N.P.), and Clarence Burt (I.C.)



W. E. Tiller (Tiller Tie & Lumber Co.), C. F. Grafton (Chapman Chemical Co.), P. D. Brentlinger (P.R.R.), and A. Dale Chapman (Chapman Chemical Co.)



D. B. Mabry, Meyer Levy, and I. C. Miller (all representing the T. J. Moss Tie Co.) and G. B. Campbell, Jr., (Tiller Tie & Lumber Co.)



A. B. Taylor and W. E. Gadd (both Taylor-Colquitt Co.) find time to discuss business matters



R. S. Belcher (A.T. & S.F., retired), dean among railway men in the timber-treating field

were there to hear the many reports and addresses and to participate actively in the program.

The business aspects of the meeting were conducted during four technical sessions, beginning on Tuesday morning, April 24. At three of these sessions railroad men acted as chairmen, and in one as session co-ordinator. For instance, the first session was directed by J. S. Giddings, assistant manager treating plants, Atchison, Topeka & Santa Fe system, while the co-ordinator of this session was A. S. Daniels of the Texas & New Orleans. The chairman of the second session was P. D. Brentlinger, forester, Pennsylvania, while G. B. Campbell, tie and timber agent of the Missouri Pacific, was chairman of the fourth session. The meeting was planned and directed under the general supervision of Fred W. Gottschalk, president of the association, and technical director of the American Lumber & Treating Co.

The session of the convention on Wednesday morning, April 25, was dominated by three addresses by railroad men, all of which dealt primarily with the problem of getting longer life from crossties through preservative treatment and other means. The first of these was by A. E. Perlman, general manager of the Denver & Rio Grande Western, whose subject was "Prevention of Mechanical Wear in Crossties." Then came T. A. Blair, chief engineer system, Atchison, Topeka & Santa Fe, who spoke on "What's Ahead for Treated Wood in the Railroad Field." Winding up this forum on railroad aspects of timber preservation was W. C. Perkins, chief engineer of the Union Pacific, who spoke on "History of Union Pacific Timber Treatment."

Research on the D. & R.G.W.

Mr. Perlman's address consisted of a resumé of the extensive and intensive efforts that have been made on the Rio Grande, starting in 1945, to find methods to reduce or eliminate the abrasion of ties in the tie-plate area. A great deal of the effort of the railroad in this direction has been based on the theory that a sticky substance placed between the tie-plate and the tie would tend to reduce rubbing action between the two surfaces, thereby eliminating abrasions. The first test installation of tie-plates glued on with a sticky substance (No. 40 Beckosol) was made in 1946. While the results were not entirely satisfactory it was observed that those ties which experienced little or no penetration frequently showed over the top surface an excess of pitch remaining from the creosote treatment. Based on the idea thus suggested a test installation was made in 1948 in which the ties were painted in the plate areas with oral tar paint, and in addition some tar-impregnated fiber-board pads were put under the plates. Although there was excessive squeeze-out of the pads during warm weather there was some reduction in tie-plate penetration in this test.

Since no conclusive result had been obtained as result of these tests the railroad built a machine for making accelerated tests in the laboratory of tie-plate wear of ties and means of preventing it. "The net results of the studies with this machine," said Mr. Perlman, "were that even the softest of wood, sugar pine, when dry, showed no abrasion, even with $\frac{1}{16}$ in. movement of the plate. At the other extreme, oak tie models were rapidly abraded in the presence of a small amount of water and minus-80 mesh dirt." A service test was then made in which various grades of coal tar and asphaltic materials were put under the tie plates to seal out water and abrasive materials. "Unfortunately," continued Mr. Perlman, "temperature changes, especially

in the lower ranges through the winter time, broke the seal around the edge of the plate and consequently the purpose was not accomplished."

Further tests have been made since with various other methods for reducing tie abrasion, including the use of galvanized iron plates to prevent water and grit from feeding down into vacant spike holes, the filling of vacant spike holes with asphalt roof-coating materials, and various types of pads placed under the tie-plates. A point of interest brought out by Mr. Perlman is that measurements made with a dial gage setup showed no tie abrasion through the winter months. In closing he said, "we naturally do not expect to achieve the millennium of eliminating the condition (tie abrasion) altogether, but results thus far obtained have been encouraging and give promise of better things to come."

Trends on the Santa Fe

In his address Mr. Blair first gave a thumbnail review of the history of timber treatment on the Santa Fe, in which he pointed out that only creosote-petroleum solutions have been used since 1923, and that at present the standard treatment for crossties consists of a 10-lb. retention of 30/70 creosote-petroleum solution. Later in his address, Mr. Blair discussed the problem of mechanical wear of crossties. Examination of a total of 80,362 ties which had been removed from track during the first ten months of 1950 showed that only 3.8 per cent were taken out because of decay, while 20.2 per cent were removed because of plate cutting, 31.5 per cent for splitting and 29.2 as a result of shattering. The various measures that are being tried out on the Santa Fe to prevent plate cutting, according to Mr. Blair, include tie pads, coatings of various materials between the tie plates and top surface of the ties, coatings of the whole tie, the incising of gum and oak ties, and various types of spikes and rail fastenings.

After quoting figures to show the average service life now being obtained from the ties on the Santa Fe, Mr. Blair said that "consideration of these figures leads me to believe that we can expect an average service life of 30 or more years from our treated ties in the future, particularly when the effects of modern tie plates and roadway maintenance practices have been felt. A solution of the problem of protection from mechanical wear also will result in an increased service life."

He said that the treatment of bridge timber and piles has been considerably reduced in recent years on his road because "we are getting more service life from treated timber bridges than we formerly anticipated. Some 20 years ago we estimated a service life of 30 years from our treated timber bridges and based our cost estimates on that figure. We later revised the estimate to 40 years. As a result of inspections within the past few years we now consider that the service life of our timber treated bridges will be more than 40 years."

Pointing out that his subject called for a prediction of what is ahead for treated wood in the railroad field, Mr. Blair made a projection of the tie renewal figures for all Class I roads for the five-year period ending with 1949, arriving at the conclusion that "a total of 37,028,591 ties will be needed annually for renewal by Class I railroads." As for the requirements of treated wood products other than ties by the railroads in the future he saw "no reason for a change in these requirements in the immediate future at least." Concluding, he said that, "although treated wood will probably not be used in replacement of some structures, new uses for treated wood will probably be found, particularly

since wood treated with fire-retardant chemicals has come into the picture."

In reviewing the history of timber treatment on the Union Pacific Mr. Perkins, among other things, noted that the first treating plant west of the Missouri river was built by the Union Pacific at Omaha, Neb., in 1865. After tracing the construction of other treating plants on the U.P., Mr. Perkins went into a discussion of how preservative treatment has extended the life of crossties on his road. Experience with Burnettized crossties, which were installed from 1904 until 1931, indicated that they had an average service life of approximately 15 years. The road then began the use of creosote-petroleum solutions, now used in a 50/50 proportion. While in 1945 it was estimated that the life of 50/50 creosote-petroleum treated crossties would be 25 years, he said, "it now appears that this estimate was ultra conservative, and that we can depend on a service life of 30 years with a maximum of 50 years." During the past ten years, 1941-1950 inclusive, after the major portion of the Burnettized crossties had been replaced by creosote-petroleum treated crossties, causing the full effect of the better treatment to be realized, Mr. Perkins said, "average renewals have dropped to 113 per mile and we expect a still further drop to approximate 100 per mile for all tracks maintained."

Committee Recommendations

A number of committee recommendations affecting the specifications of the association were adopted. Committee T-2, Southern, Jack, Ponderosa, Lodgepole and Norway Pine, for instance, pointed out that two proposed supplements to standard T-2 were approved last year, one covering the treatment of jack pine, lodgepole pine and red pine lumber, timbers, bridge ties and mine ties, and the other covering the treatment of these same products made from northern white pine, sugar pine and western white pine. The committee recommended this year that these two supplements be approved for inclusion in Standard T-2. This recommendation was approved. The result, as pointed out by the committee, is that standard treating specifications have now become available for lumber, timbers, bridge ties and mine ties made from seven new species of western and northern pines.

A number of recommendations were also made by the so-called "preservatives" committees. The committee on Revision of Manual, pointing out that last year four specifications for fire-retardant formulations were adopted as tentative specifications, recommended that these specifications, along with methods for analyzing fire-retardant treating solutions, be advanced to standard methods. This recommendation was adopted. In the preprint of its report the committee on creosote and creosote-coal tar solutions recommended the adoption of a proposed specification for creosote as presented last year as a regular standard. This recommendation was later changed, however, to read that the tentative standard be carried another year. This recommendation was adopted.

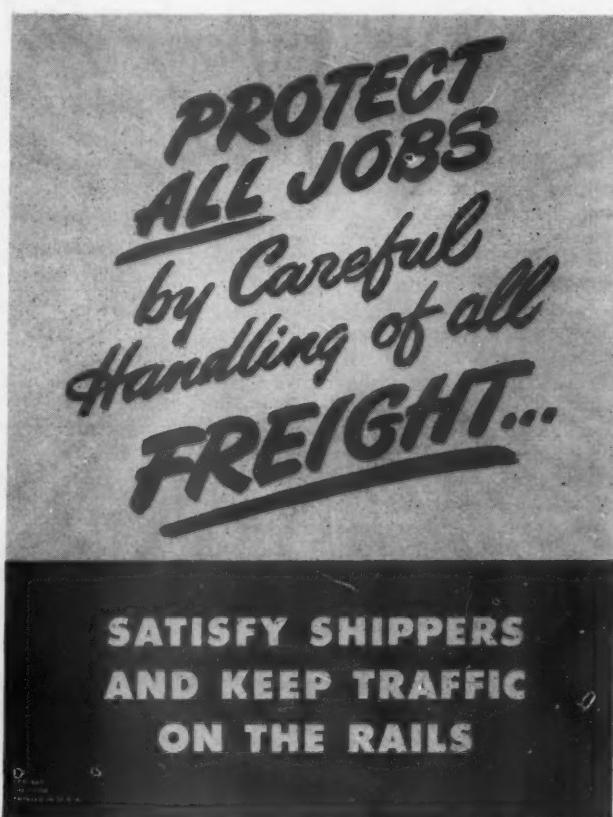
Several recommendations were made by the Committee on Non-standard Preservatives. One of these was to the effect that the provisional standard specification for petroleum for use with pentachlorophenol and copper naphthenate be confirmed as standard. It also recommended the tentative adoption of the specification and analysis of Boliden salt as they appeared in the 1950 proceedings, the tentative adoption of the specification and method of analysis for Celcure as given in the 1950 proceedings, the tentative adoption of a new

specification and method of analysis for Chemonite, and the tentative adoption of the specification and method of analysis for copperized CZC as it appeared in the 1950 Proceedings. All these recommendations were approved.

The Committee on Recommended Practice for Pressure-Preserved Lumber in Railroad Car Construction made some interesting observations regarding the use of treated material in railroad cars. It pointed out that Wolmanized plywood subflooring is now standard construction with the Budd Company, that the Atlantic Coast Line has adopted a standard of salt treatment of a number of freight car lumber items, that the Baltimore & Ohio has directed, on the basis of tests conducted, that all wood flooring and nailing strips for flat and gondola cars be pressure treated, that the Chicago, Rock Island, & Pacific is treating all decking and siding for open-top cars, and that the Western Maryland is using CZC-treated lumber when new floors are applied to box cars.

In the election of officers W. R. Yaeger, inspection engineer of the Western Electric Company, New York, was advanced from first vice-president to president; R. H. Bescher, manager of technical department of the Koppers Company, Orrville, Ohio, was advanced from second vice-president to first vice-president; and Mr. Brentlinger was elected second vice-president. W. A. Penrose was elected secretary-treasurer to succeed H. L. Dawson, who has retired. Newly elected members of the executive committee are Mr. Daniels and N. E. Kittell, Joslyn Manufacturing & Supply Co., Franklyn Park, Ill.

The Hotel New Yorker, New York, was chosen as the site of the 1952 annual meeting.



This flasher, produced by the Freight Claim Division of the Association of American Railroads, continues the A.A.R.'s program of appealing to employees on a self-interest basis

GENERAL NEWS

Freight Claim Payments Down 22.4% in 1950

Suspense accounts at end of 1950 down by 15.6 per cent

Railroad freight loss and damage claim payments in the United States last year totaled \$84,802,300, a reduction of 22.4 per cent below the 1949 figure, J. C. Stewart, superintendent of stations and transfers of the Pennsylvania, said at the 84th regular meeting of the Atlantic States Shippers Advisory Board in Atlantic City, N. J., on April 26-27. On December 31, 1950, he added, suspense accounts amounted to \$12,688,603, a decrease of 15.6 per cent below the amount in suspense one year earlier.

"Much of the credit for this accomplishment rightfully belongs to shippers," Mr. Stewart continued. "It may truthfully be said that cooperation between shippers and carriers in combatting this economic loss never was better." Figures for the first two months of this year, he went on, indicate payments are about equal to, or less than those during the first two months of 1950, although there are some indications of increases in claim payments.

500 Shippers at Meeting

Five hundred traffic executives representing shippers from six Middle Atlantic states and the District of Columbia attended the two-day meeting at the Claridge Hotel. Walter W. Weller, president of the board and Eastern traffic manager of the Weyerhaeuser Sales Company, presided. Speakers representing shippers included Charles E. Coyle, general traffic manager, Otis Elevator Company; G. H. Cunningham, general traffic manager, Sterling Drug, Inc.; Henry H. Pratt, general traffic manager, Crucible Steel Company of America; Charles B. Roeder, general traffic manager, American Home Foods, Inc.; R. E. Covey, traffic manager, Sylvania division, American Viscose Corporation; C. S. Decker, general traffic manager, Borden Company; E. C. Carson, district traffic manager, General Electric Company; R. C. Avery, manager, Claims division, Neisner Brothers, Inc.; J. R. Morton, general traffic manager, San-Equip, Inc.; and Donald McPherson, traffic manager, Carrier Corporation.

Spokesmen for the railroads were Perry M. Shoemaker, vice-president, Lackawanna, who is chairman of the board's railroad contact committee; W. E. Callahan, H. E. Stringer and G. C.

Randall of the Association of American Railroads; W. C. Allen, superintendent, freight transportation, P.R.R.; A. A. Burkhardt, superintendent, stations and motor service, New York Central System; and W. G. White, general superintendent, transportation, Railway Express Agency.

A resolution was adopted that the "board make known to Transport Administrator [James K. Knudson] its opposition to issuance of heavier loading orders without consulting the interested industry and without due consideration being given to the practicability of such orders and contingent transportation factors."

The next regular meeting of the board will be at the Robert Treat Hotel, Newark, N.J., on September 19-20. The next annual meeting is scheduled for January 16-17, 1952, at the Benjamin Franklin Hotel, Philadelphia.

Modern Plant Results From Good Earnings

Faricy says railroads also need defense-industry status

Railroads must be permitted to earn adequate revenues if they are to be able to carry on a program of improvement and expansion of the magnitude required to meet the transportation demands of the nation's mobilization program, William T. Faricy, president of the Association of American Railroads, said in an address prepared for delivery at a May 4 meeting of the Executives Club of Chicago.

Wages and prices which the railroads must pay have risen continuously in the past 12 years until today they stand more than 130 per cent above what they were in 1939, while the average revenue to the railroads for hauling a ton of freight one mile has gone up in the same period only about 40 per cent, Mr. Faricy declared.

"Such disparities in the changing levels of costs and revenues," he continued, "present problems which are sufficiently difficult in ordinary everyday operation. But in time of mobilization for national need, with all the requirements of heavy investment for additions and improvements to plant and equipment, the problem presented is vastly more difficult. That's why the railroads have been forced to seek authority for freight rates adjusted more nearly to present-day levels of costs."

Procurement of sufficient manpower and materials is also an important part of the railroads' program of improvement and expansion, Mr. Faricy also said. In time of mobilization, as well as in wartime, he added, the railroads must be recognized as defense industries—not merely industries important to defense.

During the past 12 months, the railroads have placed orders for more than 180,000 new freight cars and have put 60,000 new cars into service, Mr. Faricy stated. Although the railroads now have the largest backlog of cars on order in their history, he said, it has been difficult to obtain materials necessary for the construction of cars at the rate which the situation requires.

The A.A.R. president went on to express his hope that the minimum goal of 10,000 new cars per month would be reached in May; and then "sustained, and even increased, until there is again

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Johnny Careful...

PERFECT SHIPPING BOSS

on the M. & St. L.



HE CALLS himself John B. Careful now, with a stenographer, desk and his own "Agency for Prevention of Loss and Damage." But he's the same Johnny Careful who has been full-time boss for so many years on

The Minneapolis & St. Louis Railway

Johnny Careful tracks down Loss and Damage Claims and the mishaps that cause them. Also, he presides each April over America's celebration of Perfect Shipping Month. In April, Shippers and Railroads take stock of progress toward the goal of completely efficient freight handling.

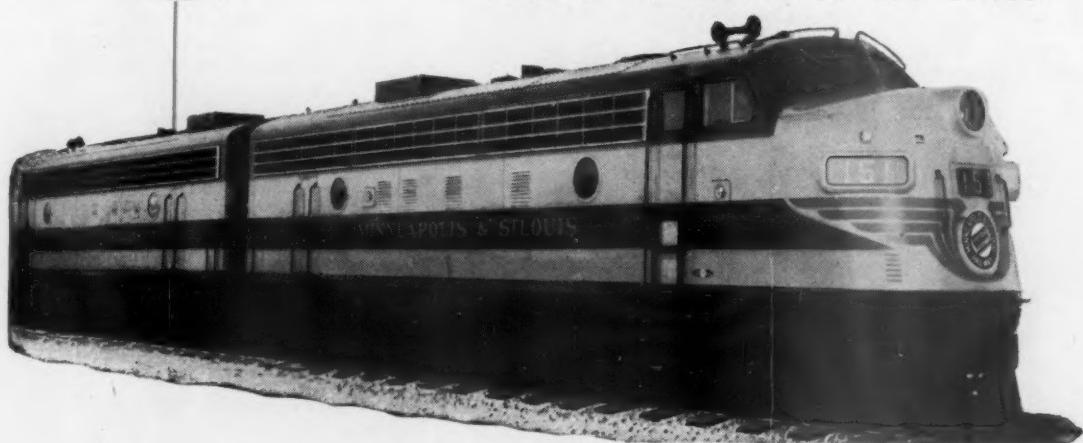
But nowadays, every month the year round, industry and the workers who pack, label and load freight demonstrate greater efficiency. Railroads, with constantly improved equipment, provide the finest transportation ever known.

Perfect Shipping Month

is celebrated 12 times a year on the M. & St. L., with Johnny Careful in charge. In the Great Midwest, M. & St. L. freight service for Shippers and Receivers, for Agriculture and Industry, for Connecting Roads, is as nearly perfect as teamwork of skilled workers can make it. Helping also are growing fleets of modern cars and locomotives, with Diesels now powering all trains.

The MINNEAPOLIS & ST. LOUIS Railway

TRAFFIC OFFICES IN 36 KEY CITIES





THIS SYNTHETIC RUBBER-FABRIC DRUM was developed by the United States Rubber Company as a shipping container "suitable for oils, greases, fats, acids, paints, emulsions, soaps, dry powders and a variety of pharmaceutical and industrial chemicals," says

a recent release from the manufacturer. The container, which can be collapsed after emptying, is returnable and reusable, U. S. Rubber states. According to the release, 2,500 collapsed drums can be shipped in a standard railroad box car. Empty weight is given as 30 lb.

a sufficient supply of freight cars to meet national needs."

In outlining some of the steps taken by the railroads to increase their carrying capacity, Mr. Faricy told of the enlarged shop forces and extended shop working time which have reduced the number of cars awaiting repair. The bad-order proportion of total ownership is now down to 4.75 per cent, as compared with almost 8.5 per cent when the stepped-up repair program was inaugurated last year.

New Cars and Motive Power

"Since the end of World War II," Mr. Faricy continued "the railroads have put into service 360,000 new freight cars and nearly 12,000 units of new locomotive power. For this new equipment, they have spent nearly three billion dollars. For improvements in their fixed plant, they have spent another two billion dollars. And they plan to spend this year, for improvements of all kinds, another one and a quarter billion dollars."

Meanwhile, the railroads have improved the effectiveness with which they utilize the cars available, Mr. Faricy pointed out. He noted that in October, 1943, the peak month of the World War II movement, the railroads turned out an average of 1,094 ton-miles of service for each serviceable car they had in general freight service. In October, 1950, the corresponding transportation output per car was 1,127 ton-miles.

"To accomplish such results, even with the prevalence of the shorter work week and lighter loadings of the present

period as compared with wartime, means a real gain in efficient freight service, even above the best levels of World War II," Mr. Faricy declared.

Experiences in the two world wars have taught that the best way to obtain railroad service adequate for national needs is through continuing the railroads as privately-operated, business-managed enterprises, the A.A.R. president stated. He added that experience in World War II had also pointed up the necessity of permitting the railroads to secure the materials and manpower they need to operate with efficiency and economy. Finally, Mr. Faricy concluded, it has been learned that the best way to have such railroads as the country needs is to grant them opportunity to adjust their charges in accordance with current costs and prices.

Fighting Briefs Filed In Divisions Cases

Point up conflicts between East and South-Southwest

Railroad conflicts over divisions of interterritorial freight rates were pointed up in vigorous language last week. The conflicts are between Official Territory railroads and Southern and Southwestern lines.

Presenting their views in briefs filed with the Interstate Commerce Commission, the roads were in strong disagree-

ment over whether present divisional bases, prescribed by the I.C.C. in 1939, should be modified "to provide the Official lines with just, reasonable and equitable divisions" which will recognize the "greater revenue needs" of those lines.

"Southern roads took the position that Northern roads as a group "have been less efficiently operated than Southern carriers. They charged that such operations have been reflected in "disproportionate increases in operating expenses." They said the Pennsylvania has been "the heaviest contributor" to the relatively less efficient operations in the North, while the New York Central's contribution to such operations has been "substantial."

The Official roads replied that such charges by the Southern and Southwestern carriers are "indefinite, confused, inconsistent, and wholly false." They declared that operating performance of the Northern roads is "highly commendable and above partisan criticism," and said their present financial plight is due, in part, "to the inadequate divisions which they have been receiving."

The proceedings which brought forth these charges date from December 4, 1947. At that time the commission instituted a general investigation into divisions of joint rates on classes and all commodities between points in Official Territory and points in Southern and Southwestern Territories. The cases are docketed as No. 29885 and No. 29886.

Official roads asked for the investigation, contending that existing divisions were prescribed by the commission on the basis of records that are now outdated. They feel that "radical changes" in the economic, traffic, and operating conditions in the territories have made present divisions "grossly unfair" to the Northern roads.

Extent of Disagreement

The Southern roads countered by saying that Northern carriers are seeking to take away more than \$40,000,000 of annual freight revenues from the Southern carriers, based on 1947 traffic levels. They said this was a "futile attempt" by the Official lines "to offset less favorable earnings in the post-war years which are the direct consequence of their own less efficient operations."

"Such less favorable earnings in the North are bound to disappear in the future when its real earning power (as distinguished from earnings) re-asserts itself; the Pennsylvania gets back on its feet; and the New York Central gets on its feet," the Southern roads said.

The extent of disagreement between the roads, and the scope of the proceeding, was pointed up by the size of the briefs filed with the commission. The Northern roads views were embodied in a 404-page volume, while those of the South were in two volumes, totaling 499 pages.

Northern carriers outlined their argument in eight major points. These



Soil Cultivation Is Increasing the Southeast's Prolific Yield....



CREDIT fertilizer with an important assist in the abundant fruits of the good earth in the Southeast. Superbly conditioned soil is the forerunner of the sturdy, diversified crops that abound in this opportune region.

Coast Line agricultural workers have been instrumental in bringing home to farming communities the all-around benefits of intelligent soil conditioning.

ATLANTIC
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RAILROAD

included the claim that in the matter of efficiency of operation the Official lines "are second to no other group of railroads." They also charged economic and traffic conditions have "changed radically" in favor of the Southern lines, costs of service now are higher in the North than in the South and Southwest, and the revenue need of Northern lines "is very much greater" than the need of the other groups.

Southern Contentions

They asked the commission to prescribe divisions of all joint rates on the traffic involved "which are within its power under section 15 (6) to divide." Such rates include so-called "joint through rates" and "aggregate of intermediate rates."

Southern roads made these major points: The Northern lines are less efficient; relative revenue needs are if anything greater in the South than in the North; and cost evidence submitted in the case does more than support present revenue proportions—on certain traffic the Southern proportions are too low.

These roads said factors other than mileage haul, such as originated traffic, entitle them to greater relative divisions than Northern lines.

C. of C. Panel Assays

Transport's Readiness

Examines carriers' ability to meet defense tasks

A panel discussion by five transportation executives on the subject "Is Transport Geared to do the Job?" was on the program of the annual meeting of the Chamber of Commerce of the United States in Washington, D. C., last week. The discussion was held at a May 1 luncheon session at the Statler Hotel.

Participants were Colonel Robert S. Macfarlane, president of the Northern Pacific; Leland James, president, American Trucking Associations; R. W. Budd, president, Great Lakes Greyhound Lines; Ralph S. Damon, president, Trans-World Airlines, and John E. Slater, president, American Export Lines. The moderator was A. G. Anderson, president of the National Industrial Traffic League and general traffic manager of the Socony-Vacuum Oil Company. Evans A. Nash, chairman of the chamber's Transportation & Communications Committee, presided.

The session opened with a statement

on "Transport Mobilization Objectives" by Delos W. Rentzel, Under Secretary of Commerce for Transportation. He told the meeting that land, sea and air men "rarely understand each other's problems" but that from an economic point of view "some understanding can be advocated for the benefit of all."

Mr. Rentzel commented on problems that transport agencies face in expanding their facilities for defense. He indicated that in his opinion all carriers are in much better shape today, relatively, than they were in 1940, and spoke of the need for "industry-government teamwork" during the mobilization period. He said that "for their own good, and the good of the public," transportation agencies must remain under federal regulation.

Colonel Macfarlane presented the railroad viewpoint in the panel discussion following Mr. Rentzel's statement.

He told the group that the capacity and economy built into railroads will enable them to handle "a major portion of whatever task that may be ahead." He said the roads are better prepared today than they were at the time of Pearl Harbor, and added that they are at present seeking a 15 per cent freight-rate increase "as a



"HERE'S HOW" is the title of a new movie on proper handling of I.c.l. freight, produced by the Denver & Rio Grande Western's claim prevention and public relations departments. The two photos are stills from that portion of the film shot at the Pueblo, Colo., freight house of the Rio Grande. During April, E. F. Smith, the Rio Grande's supervisor claim prevention, showed this film at about 20 stations on the line



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BALTIMORE & OHIO RAILROAD

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necessary part of effective transportation mobilization."

The N.P. president said increases in freight charges are an effect of inflation, rather than a cause, and pointed out that the average ton-mile revenue of the railroads is only about 40 per cent higher than it was in 1939, while the level of wages and prices is up more than 135 per cent.

Meanwhile, since World War II the roads have spent more than \$5 billion to enlarge their capacity and improve their operations, he said. He added that in 1951 alone, the roads plan to spend more than a billion and a quarter dollars on better plant and equipment.

Colonel Macfarlane commented on the freight car situation by noting that in recent weeks there has been "a definite improvement" in supply. Later, in answering a question from the floor, he said he believed this trend is only temporary, however, and that other large shortages will arise this autumn.

Truck and Bus Viewpoints

Mr. James, discussing the preparedness of the trucking industry, stressed the "indispensable" role of the trucker in World War II, but said that as of the moment his industry is not "geared to do the job."

There is no surplus capacity in truck plant, Mr. James declared. He said truck traffic so far this year is running about 30 per cent above the 1950 level, and that present capacity is being taxed to handle that load. He asserted that production of new trucks is slowing down because of shortages of parts, particularly tires. In addition to these troubles, most of the nation's highways are "obsolete," and weight laws need correcting.

Mr. James said that government planning has not recognized the real needs of the trucking business, but added that the Defense Transport Administration is now at work on many of the problems in that field. In that connection, Mr. Budd of the Greyhound Lines said he is "convinced" that D.T.A. is aware of the needs of his industry, but declared that "no relief or encouragement" has been received from allocation agencies.

As to the readiness of motor bus transportation, Mr. Budd said with its flexibility and availability, it is "ready and willing to do its job." He cited the need for a program which would insure replacement parts for vehicles, for deferment of essential manpower, and for an "expansion and maintenance" program for highways.

Mr. Damon's remarks pointed up the large expansion that has occurred in his industry since 1940. He said air transport has more than 10 times the capacity it had at the beginning of World War II. However, as to the air lines' role in mobilization, Mr. Damon said they "are not altogether ready even for all-out peace." He said the air carriers "are only lately coming of age," and they hope to continue their expansion.

The comments by Mr. Slater were to the effect that ocean shipping problems are "completely different" from other forms of transportation. He said today's fleet is "infinitely better" than at the beginning of World War II, but said the greatest weakness now is in passenger-carrying ships.

Central of Georgia Extends L.C.L. Rail-Truck Service

(Special to *Railway Age*)

Faster freight service on l.c.l. shipments has been expanded by the Central of Georgia; through combination rail-truck service, the Central on May 2 began expedited handling of such shipments over five new routes in Georgia: Atlanta-Barnesville, Macon-Thomaston, Macon-Athens, Macon-Powderdale, and Macon-Dublin.

Central officers said faster handling of l.c.l. is the primary purpose of the new service. Prevailing rates by rail apply to the truck operations, and all shipments move under railroad responsibility on railway bills of lading. The service is not limited to "picked" cargoes; any l.c.l. freight offered for shipment will be accepted. Tractors and trailers for the new service conform completely to federal and state regulations, including weight, size and speed.

Rail-truck service was first inaugurated by the C. of Ga. the beginning of this year between Columbus, Ga., and Chattanooga, Tenn., and between Griffin, Ga., and Newnan, and has proved tremendously successful, which is the reason for its expansion to other areas served by the railroad.

N. Y. C. Improving Syracuse Freighthouse

Is handling 12% of l.c.l. in coordinated truck service

The freight traffic department of the New York Central has announced in its third "L.C.L. Bulletin" that the railroad's freighthouse and teamway facilities at Syracuse, N. Y., are now undergoing improvements, "to make possible a faster, more mechanized operation." These improvements include paving and depressing of the driveway, construction of a new canopied island platform, addition of 10 doors to which trucks may back up, and widening of the loading platform on the track side of the house. Total cost will be about \$350,000.

Along with this announcement in the bulletin is another announcing proposed extensions of the Central's coordinated rail-truck service to another 178 stations on 1,700 miles of the railroad's lines west of Buffalo, and on the West Shore.

Concurrently with the issue of its "L.C.L. Bulletin," the N.Y.C. also has

announced that its coordinated truck service is now serving some 850 way stations. In 1950, the trucks handled some 200,000 tons of l.c.l., or about 12 per cent of the N.Y.C.'s total 1950 merchandise traffic. To provide this service, the announcement goes on, the N.Y.C. incurred costs amounting to about \$900,000, the greater part of which went to the 40 trucking contractors who operate about 325 vehicles in the service of the railroad.

Results of this coordinated truck service on its Big Four district "have more than measured up to our expectations," the railroad said. "Service to and from smaller communities in that district has been improved in all cases by at least 24 hours, and sometimes more. Also, there have been operating savings due to virtual elimination of overtime which frequently was incurred in local freight service due to time required to work the peddler car. More important, in this period of national emergency, cars formerly used in peddler service have been released from inefficient lightly-loaded way-freight service and are now being used for long-haul carload movement."

House Group Concludes St. Lawrence Hearings

The House Committee on public works on April 30 concluded hearings on pending resolutions to approve the United States-Canada agreement for construction of the proposed St. Lawrence seaway and power projects. Opposition testimony was heard at sessions held throughout the month of April, the presentations of proponents having been received at an earlier series of hearings which closed March 7.

Representatives of railroad labor organizations were among opposition witnesses appearing at the closing sessions. The main presentation of the Association of American Railroads was made by its assistant general counsel, Gregory S. Prince, who was the first of the opposition witnesses. (*Railway Age*, April 16, page 53.)

Other parts of the A.A.R. presentation were statements filed for the record by Walter J. Kelly, vice-president in charge of the Traffic Department, and Caleb R. Megee, vice-chairman of the Car Service Division. J. M. Hood, president of the American Short Line Railroad Association, also filed an opposition statement.

Traffic Estimates Incorrect

A.A.R. Vice-President Kelly said there is no reasonable possibility that the seaway could be made self-liquidating by imposition of tolls. This is especially true in the light of the plan now under consideration, which provides for continued operation of present St. Lawrence canals on a toll-free basis, Mr. Kelly added.

"It is unreasonable to assume that all or even a major part of the present St. Lawrence traffic could or



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THE problem of choosing an industrial site is perhaps the most important one that can face an executive. And a wrong decision can cause irreparable damage. That's why C & O's Industrial Development Department can be of invaluable aid in guiding your choice. Its facilities are available without cost or obligation to concerns contemplating a new location. Actually, C & O has a stake in your correct choice, for the prosperity of the railroad depends upon the success of the communities and industries it serves. That's why C & O's Industrial Development Department has devoted such intense research in analyzing every aspect of the business potential of its territory, including data on natural resources, markets, sites, transportation, labor, power, taxes, water, temperature, and living conditions.

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CHESAPEAKE AND OHIO RAILWAY

RAILROADS' MERCHANDISE SCHEDULES PRODUCED AS SHIPPERS WANT 'EM

Within the past month *Railway Age* has received lists of scheduled merchandise service put out by 14 railroads. All of them have been produced in a form specified by Shippers Advisory Boards.

Although the compilations are variously titled, their size is the same, 8½ inches by 11 inches. All of them have holes punched in the left margin, so that they may be inserted in looseleaf binders. Each list, in addition to giving transit time, shows points served by way car, through car, truck and L.C.L. refrigerator service. Quality of printing and paper varies—but the information is there.

All roads state that interested parties may procure copies of these pamphlets from the nearest traffic office of the issuing railroad.

For service to, from and within the South and Southeast, the following schedules have been received:

Atlanta & West Point-Western of Alabama—"L.C.L. Merchandise Service";

Georgia—"L.C.L. Merchandise Service";

Louisville & Nashville—"Merchandise Directory"; and

Gulf, Mobile & Ohio—"Scheduled Merchandise Cars and Coordinated Truck Service."

The following Eastern and Pocahontas carriers have sent in their schedules:

Baltimore & Ohio—"L.C.L. Merchandise Service";

Chesapeake & Ohio—"Scheduled L.C.L. Package Cars";

Erie—"Scheduled Less-Carload Merchandise Car and Truck Lines" (transportation department circular no. L.C.L.-3A); and

New York Central—"Scheduled Merchandise Cars."

Western and Southwestern areas are represented by the:

Chicago, Rock Island & Pacific—"Merchandise Loading Schedules";

Minneapolis & St. Louis—"L.C.L. Merchandise Freight Schedules";

Missouri-Kansas-Texas—"Merchandise Car Schedules and Related Information";

Northern Pacific—"L.C.L. Merchandise Service";

Union Pacific—"Directory of Less-Carload Merchandise Schedules" (Circular 10); and

Wabash—"Merchandise Schedules."

the ore from the East Coast to the Pittsburgh area.

"As a matter of fact, the existence and availability of the inbound rail ore movement would tend to increase the efficiency and economy of the rail transportation operations to and from these ports," Mr. Megee continued. He went on to say that the same considerations would apply in large part to movement of iron ore from Montreal. He listed the railroads there involved as the Canadian Pacific, the Canadian National, the Delaware & Hudson, and the New York Central.

It was also Mr. Megee's contention that a rail movement of ore from Montreal would be less susceptible to sabotage and enemy action than movement on the proposed seaway. The latter, he said, would provide a single water route, whereas the railroad routes would permit a "minimum four-fold dispersion of traffic."

Morey Honored for Work On Gas Turbine Locomotive

Arthur H. Morey, project engineer of the Locomotive and Car Equipment divisions of the General Electric Company, recently was awarded a Charles A. Coffin award, the company's highest honor, for his "vision, ingenuity, and perseverance in designing, developing and testing the first gas turbine electric locomotive to be built in the United States." Mr. Morey was one of 65 employees to receive the award this year. The awards, which honor employees for outstanding accomplishments beyond the normal expectancy of their work, are named for one of the founders, and first president, of General Electric.

Report on Loss and Damage Submitted to A.A.R. Board

The board of directors of the Association of American Railroads on April 27 discussed the report and recommendations of the so-called committee-of-nine which investigated the association's activities in the field of loss and damage to freight. The discussion was among proceedings at the board's regular monthly meeting in Washington, D. C.

Final action on the report was deferred until the board's next meeting, which is scheduled to be held May 25. Meanwhile, the committee-of-nine was asked to prepare a further statement of its views with respect to the report's recommendations. The report was not made public.

As noted in *Railway Age* November 25, 1950, page 46, the investigation involved was designed to cover the organizational set-up of A.A.R. activities in the field of loss and damage, with particular reference to freight claim prevention and all related activities. The study was authorized by the A.A.R. board, and A.A.R. President William T. Faricy arranged with the (Continued on page 65)

would be won over from the existing toll-free canals to the proposed new channel where it would be subject to tolls," Mr. Kelly declared. "Yet, just such an assumption—without any apparent study to support it—appears to have been made by proponents of the plan."

Mr. Kelly also testified that proponents of the seaway proceed on the assumption that construction of the 27-ft. channel would open the St. Lawrence to ocean-going vessels which, because of their economy of operation, even taking into account the tolls to be charged, would succeed in attracting the estimated tonnage.

"The fact is that the proposed channel would not accommodate a great many ocean-going vessels, and this is particularly true of the United States merchant fleet," Mr. Kelly said. "As of June 30, 1950, out of a total of 3,425 ocean-going vessels in the U.S. merchant fleet, only 326 or 9.5 per cent had a draft sufficiently shallow when fully loaded to use the seaway."

The A.A.R. vice-president recalled that a Department of Commerce study in 1941 concluded that the seaway's potential annual traffic on 17 selected items would be from 4,600,000 to 4,800,000 tons, and the addition of items not selected for study would increase the traffic to 7,000,000 tons. This study, Mr. Kelly continued, has now been abandoned; and instead of 7,000,000 tons, it is now claimed that the seaway is to handle 57,000,000 to 84,000,000 tons annually.

"Even the Panama Canal, 40 ft.

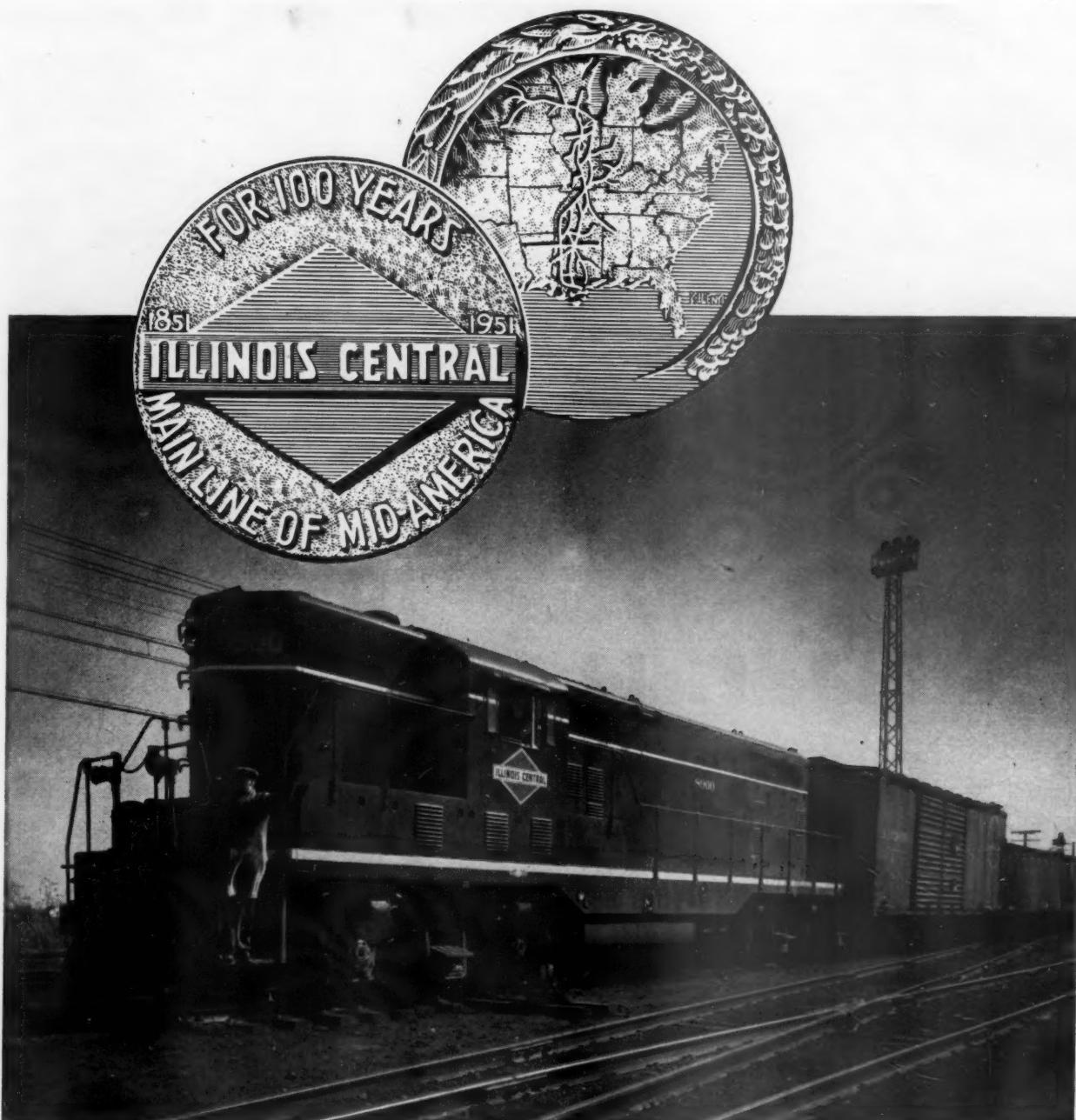
deep . . . a great international highway joining two great oceans and open the year round, handled in 1950 only 28,872,293 tons of toll-paying traffic," Mr. Kelly noted.

Rails Can Handle Traffic

Vice-Chairman Megee of the Car Service Division asserted in the statement he filed that the railroads are physically capable of moving to steel mills, iron ore expected to come from new mines in Labrador, thus making construction of the seaway unnecessary. Mr. Megee put at 10,000,000 tons the expected annual movement of Labrador ore. And he said developers of the Labrador deposit plan production on that basis, whether or not the seaway is built.

The 10,000,000 tons involved can be moved by rail from East Coast ports and Montreal, Mr. Megee insisted. He noted that ore moving from the ports of Philadelphia and Baltimore to the Pittsburgh district would be going over lines of the Pennsylvania, the Baltimore & Ohio, the Reading, and the Western Maryland; and these are "among the most modern and best-equipped railroads in the country."

The C.S.D. vice-chairman explained that railroads are already handling large volumes of traffic closely resembling in transportation characteristics the proposed Labrador ore movement. Thus, he added, there is no ground for the theory advanced by seaway proponents that extensive and costly strengthening and reconstruction of rail lines would be necessary to move

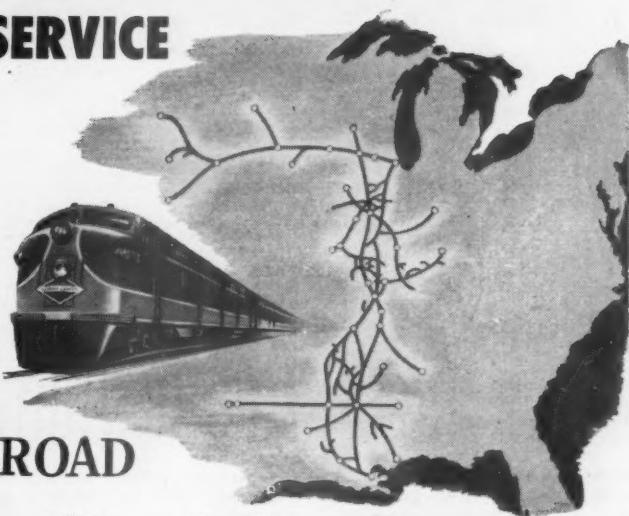


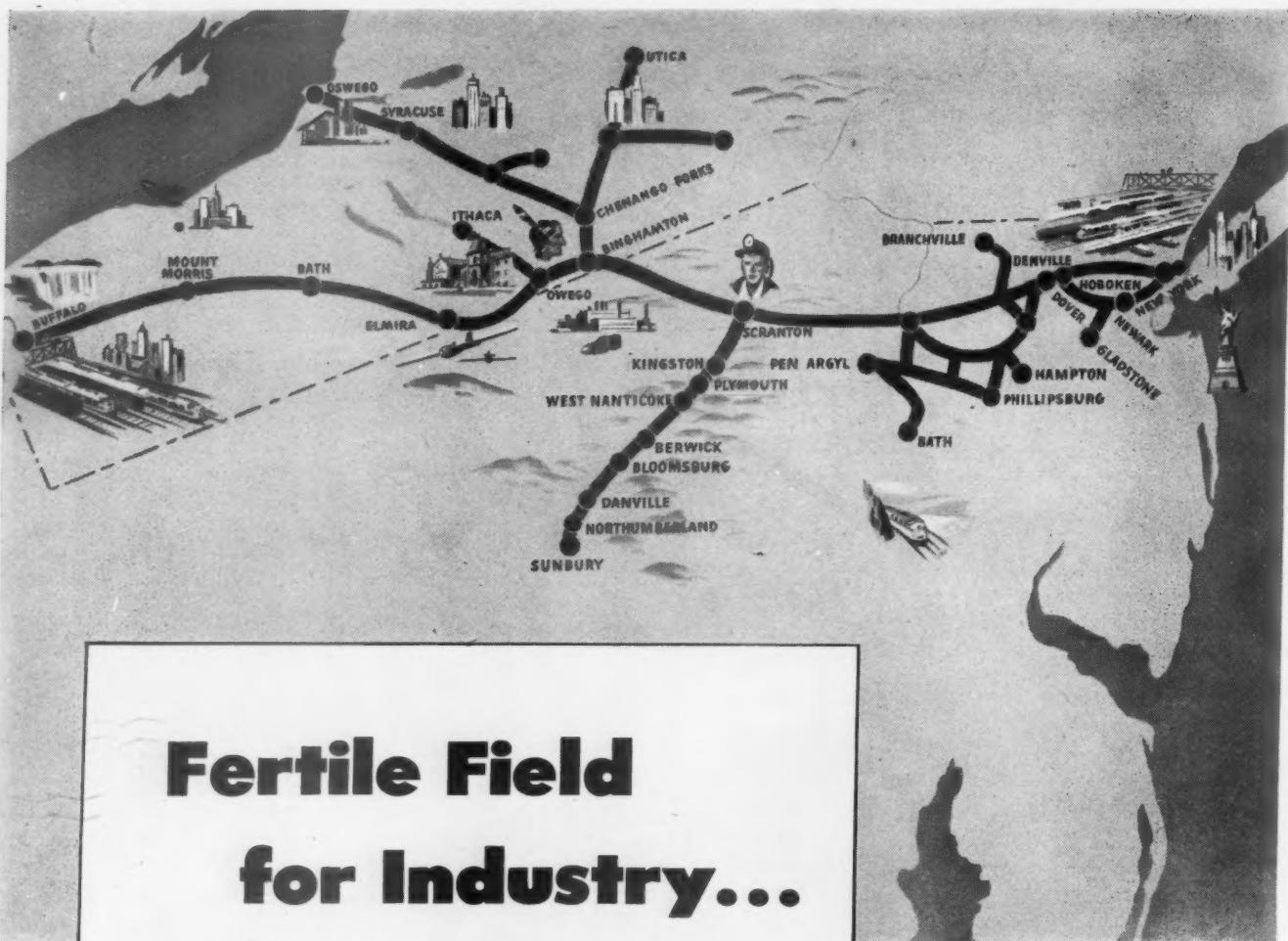
BETTER SWITCHERS—BETTER SERVICE

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Lackawanna Railroad



SHIPPERS WHO ARE IN THE KNOW, CHOOSE THE ROUTE OF PHOEBE SNOW

(Continued from page 62)
regional presidents' conferences for appointment of the committee-of-nine. The committee consists of one operating officer, one accounting officer, and one freight claim officer from each of the three regions.

Other discussions at the A.A.R. board's April 27 meeting included talk of the freight-car situation. This pointed up the improvement in car supply which has occurred in recent weeks, it was stated.

Seaboard Issues Schedules Of Through Freight Trains

The Seaboard Air Line's condensed and through freight schedules have been published in a form similar to that of a passenger timetable folder. Schedules for the main line and more important branches are shown, including lines in Florida and that portion of the main line running to Atlanta and Birmingham. Copies and further information are available at all Seaboard traffic offices.

P.R.R. Pamphlet Suggests Bonded Block Loading

Issued recently by the Pennsylvania is its loss and damage prevention bulletin number 22, "Suggestions for the Prevention of Damage to Canned Goods," showing in condensed form "what we consider to be the best methods of loading, as developed by the Association of American Railroads and our own experience." A four-page pamphlet, this bulletin shows in sketches the proper manner of loading cars, using either the staggered (off-set) or bonded block method. Also sketched is a method of loading containers of mixed sizes.

On page two of the bulletin, the Pennsylvania points out the importance of loading in good cars, as well as the necessity for proper preparation of the car before loading. "If it is found necessary," the P.R.R. says, "to load a car with bulged end walls, rigid dunnage should be installed to 'square them' and thus avoid the development of lineal slack in the load." Lineal slack is recognized as an important contributor to canned goods damage and retaining paper securing of the load is recommended as a prevention measure. A drawing shows how retaining paper should be used.

Copies of bulletin 22 may be obtained through the office of the manager of stations and motor service, Pennsylvania Railroad, Philadelphia 4, Pa.

Canadian Demurrage Charges Increased

In a move aimed at getting greater use out of Canada's scarce box cars, the Board of Transport Commissioners has prescribed higher penalties for delays in loading and unloading.

The board, however, threw out most of a railway application for still stiffer regulations governing use of freight cars. The railway plan would have been patterned on wartime rules that were carried through to early 1949.

The board's action consisted in increasing demurrage charges, effective May 1, to from \$3 to \$7 per day on each car held beyond free time. The existing range is from \$1 to \$5. The railways had applied for charges running from \$2 to \$15 a day. The free-time period was left unchanged at a minimum 48 hours, with extra time for Sundays and holidays and some special conditions.

The board said the increased charges should deter use of cars for storage and provide an incentive for increasing use of railway equipment.

D.T.A. Appointments

Frank E. Russell has joined the staff of the Defense Transport Administration as chief of the Roadway, Equipment and Manpower Branch in the Railroad Transport Division. Colonel Russell came to D.T.A. from the Southern Pacific where he had been superintendent of motive power at Sacramento, Calif. He was with the Military Railway Service during World War II, serving in Iran and the Philippine Islands.

Paul F. Royster, who has been with the Cross Transit Corporation of Kokomo, Ind., has been chief of the Materials Branch in D.T.A.'s Equipment and Materials Division. Paul L. Tietjen and Edward D. Hicks, Jr., have been appointed directors, respectively, of the Inland Water Transport Division and the Street and Highway Transport Division.

Benjamin P. Adams and Garnett L.

Eskew have joined the staff of the Division of Information. Both formerly held like positions with the Office of Defense Transportation.

Court Ruling Makes I.C.C. Name Hearing Examiners

Forty-five additional examiners on the Interstate Commerce Commission's staff have been designated by the commission as hearing examiners. The designations were part of the aftermath of the recent decision of the United States Supreme Court in the so-called *Riss* case.

That decision, noted in *Railway Age* of April 23, page 39, held that the commission had failed to follow the separation-of-functions provisions of the Administrative Procedures Act when it permitted an employee of the Bureau of Motor Carriers to serve as examiner in proceedings wherein the bureau was an intervener in opposition to motor-carrier applications of *Riss & Co.*

Forty-one of the 45 newly-designated hearing examiners are on the staff of the Bureau of Motor Carriers, and the other four are assigned to the Bureau of Finance.

Another commission action, taken since the court's decision, was an April 26 order setting aside prior orders in the involved *Riss* cases which are docketed as No. MC-200 Sub. Nos. 34, 55, 40, 41, 42, 60, 62, 63, and 84). These prior orders were designed to deny permanent operating authority sought by *Riss* in Sub-No. 84, and to terminate temporary authorities issued in the other cases. The April 26 order continues the temporary authorities in effect pending a reconsideration and final determination by the commission of Sub-No. 84.



THE MAINE CENTRAL'S new china clay storage shed at Portland (Me.) Terminal Wharf No. 3. As clay is unloaded from the ship it is dumped into portable hoppers which feed the clay through the roof hatches. Covered car loading dock is on right side of main building



STRONG SPOKES in the ARK-LA-TEX WHEEL OF PROGRESS



In addition to extensive offices, shops, yards and a large area of the choicest industrial land in Shreveport, KCS Lines own and operate the Union Station properties there.



SHREVEPORT, LOUISIANA, was a quiet little town when the Kansas City Southern built in from Kansas City in the nineties. Now the Caddo parish seat is a metropolis of 125,000—hub-of the ARK-LA-TEX (Arkansas-Louisiana-Texas) wheel of progress, where two million Americans spend more than a billion dollars annually.

Shreveport is the natural gas capital of the nation, with petroleum and refining also ranking high as factors which have influenced the city's 28% population increase in the past decade.

And the strong spokes of Kansas City Southern Lines radiate from the hub city in all directions to provide fast transportation service directly, and by connections, to every corner of the land...and world-wide through five great Gulf ports.

J.W. Scott
Vice President—Traffic



U. S. Chamber Won't Call For Easing of Truck Rules

The proposed statement that "the states should be encouraged to cooperate in the elimination of unnecessary size and weight restrictions upon interstate traffic" was eliminated from a policy declaration on "Vehicle Sizes and Weights" before the declaration was adopted by the Chamber of Commerce of the United States last week. Going the other way to advise the states to enforce rather than ease their regulations, the adopted declaration reads as follows:

"The regulation of motor vehicle sizes and weights is recognized to be a state and not a federal responsibility, and the states should rigidly enforce all such regulations."

The declaration was among other transportation-policy pronouncements approved by the chamber at a May 2 session of its annual meeting in Washington, D. C. The meeting also included a panel discussion on "Transport Readiness" which is reported elsewhere in this issue.

The proposed call for state cooperation to eliminate "unnecessary size and weight restrictions" was the second sentence of the proposed declaration, as recommended by the chamber's policy committee in advance of the annual meeting. The first sentence then consisted of that part of the adopted declaration which says that "the regulation of motor vehicle sizes and weights is recognized to be a state and not a federal responsibility."

On the basis of representations made with respect to this original proposal, the policy committee framed the revised version which finally became the adopted declaration. Before its favorable vote on the adoption, the chamber membership rejected proposed amendments which would have restored some of the original version's flavor.

Other Policy Declarations

Among the other transport-policy declarations adopted by the chamber was a call for "transport conservation." This noted the pressure on transport facilities and went on to make these recommendations. "Carriers should improve the service wherever possible, keep their equipment in prompt repair, and purchase needed new equipment. Shippers should load cars fully, avoid unduly circuitous routing, load and unload promptly, and avoid use of equipment for storage purposes."

Another declaration, on "Allocation of Manpower and Materials," asserted that "so long as government allocation continues necessary freight and passenger carriers should be given the manpower, materials, supplies, fuel and equipment needed to provide efficient and adequate service."

The chamber's position with respect to a single transportation regulatory agency remains pretty much the same as it has been, although the language

of the declaration on that subject was modified. The declaration now reads as follows:

"To help assure the development and maintenance of a balanced, competitive and financially sound privately owned and operated transport system, all federal transportation regulatory,

administrative and promotional functions (except emergency transport functions) should be placed in one permanent transportation agency, responsible directly to Congress, as soon as this can reasonably be accomplished under appropriate legislation. Pending achievement of this objective, the In-

Teachers Learn the Fourth "R"

All the schools of Michigan City, Ind., closed on April 24, to permit their teachers to "go to school" in different local business organizations for a firsthand lesson in American private enterprise at work. The Chicago South Shore & South Bend "tutored" 16 of the teachers on the 4th "R" — Railroading — by taking them through the road's general offices and shops conveniently at hand in Michigan City. The day was climaxed by a short trip in the cab of one of the road's new 273-ton electric freight locomotives, during which the South Shore's system-wide radio communications system was demonstrated.

The tour was all a part of "Business Education Day" — a nationwide program of the U.S. Chamber of Commerce designed to acquaint school teachers with the workings of com-

merce and industry. Because it is a relatively small railroad, the South Shore made an ideal classroom for the teachers to see and understand all the factors that make up a railroad's organization. As a souvenir of their visit (and to encourage additional "homework"), the railroad prepared for each a special textbook consisting of over 40 exhibits including a history of the road; how it fits into the cooperative — yet competitive — American railroad system; samples of paper-work forms used by the operating department (all filled out with information from an ordinary working day); current public and employees' timetables; a 1950 annual report, etc. The South Shore's "school" is so popular with the teachers that a "seniority roster" has been established to select those who shall attend.



QUIZ (left above) — While watching for a meet with a passenger train, teachers kept the freight locomotive engineman busy supplying the answers

FACULTY MEETING (below) — After school came a discussion about improvements for next year's curriculum; (left to right) Mr. Utley, Charles H. Jones,

vice-president and general manager, Mr. Weber, and Merle Aldrich, master mechanic

LUNCH HOUR RECESS (right above) — Assistant Superintendent Walter Weber (head of table) and Vice-President and Comptroller E. H. Utley got little respite from questions



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Katy's bringing a mighty powerful fleet
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For '51 we're on the run . . . on the run
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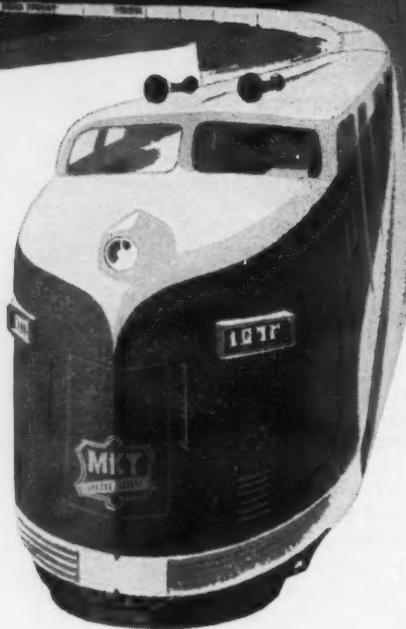
More Diesel yard switchers to trim
minutes from terminal transferring times.
More, and still more, new, improved
giant road Diesels to pull longer freights,
farther faster for the vigorous Southwest
of an alerted nation.

In fact, we're "re-doing" Katy freight
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the TRADITIONAL . . . the modern,
smooth, speedy Diesel power with the
fine old dependable Katy service the
Southwest has known, right down the
line, for nearly 80 years.

Yes, the Katy is stepping up the pace

. . . "quicken the heartbeat" of the
Southwest. Why? Because the Katy has,
and always shall, serve the Southwest
with the finest.

Your local Katy representative will be glad to
tell you even more about Katy's many new
plans . . . and how you may benefit by shipping
and traveling Katy, Southwest.



Interstate Commerce Commission, the Civil Aeronautics Board and the Federal Maritime Board should be free of controlling influence by the executive branch of the government."

Waybill Study

Another waybill study has been issued recently by Bureau of Transport Economics and Statistics of the Interstate Commerce Commission. It is Statement No. 5119, State-to-State Distribution of Traffic and Revenue for All Commodities Combined—Terminations in the year 1949.

Consumption of Oil: Diesel Versus Steam Locomotives

An editorial in *Railway Age* of April 16, titled "The More New Diesels, The Better", inadvertently omitted the words "per day" in setting forth the relative consumption of fuel by oil-burning steam locomotives and diesels, respectively. The sentence should have read: "Oil-burning steam locomotives, in 1949, used 163,000 bbl. of heavy oil per day, compared with 93,000 bbl. of diesel fuel burned by diesels."

Parmelee's Rate-Case Data Show Rise in Railroad Costs

The annual cost of operating the railroads has gone up \$971 million over what it was in 1950 because of increases in wages and the prices of fuel, materials and supplies, Dr. Julius H. Parmelee, vice-president of the Association of American Railroads and director of its Bureau of Railway Economics, said in a statement filed with the Interstate Commerce Commission on May 2.

The statement, based on a statistical presentation which Dr. Parmelee also filed, set forth testimony the B.R.E. director will offer at next week's hearings on the railroads' Ex Parte No. 175 petition for a 15 per cent increase in freight rates. The hearings will be held in Washington, D.C., beginning April 14. The commission has already granted interim increases averaging over-all about 2.4 per cent (*Railway Age* of March 19, page 69).

Supporting the railroads' petition, Dr. Parmelee explained that wage increases since September, 1950, amount to more than \$634,000,000 on an annual basis. Increases in the prices paid for fuel, materials and supplies since July, 1949, have increased operating costs by \$337,000,000 annually, he added.

Dr. Parmelee pointed out that traffic estimates of the railroads show that there will be a ton-mile traffic increase of only 7.4 per cent in 1951 over what it was in 1950. On the basis of this traffic, present prices for fuel, materials and supplies, wage rates and current freight rates, the rate of return on railroad net investment will decline

News Briefs . . .

. . . A new policy of personally conducting off-line traffic representatives on an inspection tour of the railroad has been inaugurated by the Chicago & Eastern Illinois. As a starter, a group of four general and traveling agents were recently shown all the road's facilities and improvements, starting at the general office at Chicago and ending—four days later—with the terminal facilities at St. Louis.

. . . The Canadian government has been urged in the House of Commons at Ottawa to increase immediately the basic pension of retired employees of the Canadian National, and particularly of those receiving \$40 a month or less. Transport Minister Lionel Chevrier said revision of the C.N. pension system now is being studied by a committee composed of employees and officers of the railway. He indicated the government would not change the pensions until the committee has made its report. There are said to be more than 7,000 former employees of the C.N. receiving less than \$40 a month, including 1,700 who receive only the basic pension of \$25.

from 3.95 per cent in 1950 to 2.97 per cent this year, and net income will show a decrease of \$256,000,000, he declared.

Dr. Parmelee explained that even if the railroads receive the 15 per cent increase in rates which they seek, the rate of return for a full year of operations would amount to only 4.8 per cent. What he called the inadequacy of both current and prospective railroad revenues stems from the disproportionate increases experienced by the railroads during the past decade in the prices they receive for performing a unit of transportation service on the one hand, and in the prices they pay for a unit of labor and a unit of materials on the other, Dr. Parmelee said.

"At the present time," he continued, "the railroads are receiving only about 40 per cent more than in 1935-1939 for the average unit of transportation service performed, including the recent interim increase in freight rates and charges. In contrast, they are paying nearly 150 per cent more per hour for labor than in the 1935-1939 period and approximately 130 per cent more per unit of materials purchased."

As a result of this disparity, Dr. Parmelee stated, the beneficial effects of the greater volume of traffic now being handled and the advances made in efficiency and economy of operations have been absorbed by the continuing increases in wage rates and material prices.

The railroads are carrying on a vast program of improvement and expansion to meet the transportation demands of the rearmament program as

well as daily commerce, Dr. Parmelee said, and to help carry out this program, the carriers will make capital expenditures of an estimated \$1,376,000 this year.

Unless the railroads are permitted to earn adequate revenues for the service they perform, they will either have to increase their outstanding debt in considerable measure to finance capital improvement work or sharply curtail such work, Dr. Parmelee maintained. Either alternative would lead in the long run to increased transportation costs, he said. The railroads should have a revenue level high enough to meet the needs of the industry without the necessity of increasing outstanding debt, he concluded.

Amortization Certificates Go to Seven More Roads

Seven railroads were among the latest group of transportation agencies to receive certificates of necessity authorizing accelerated amortization of facilities for tax purposes. The certificates were issued by the Defense Production Administration, upon recommendation of the Defense Transport Administration.

Included among the certificates were 13 for the Pennsylvania, totaling \$56,006,981, all for freight car construction. D.P.A. approved 80 per cent of that amount for accelerated amortization.

Other roads and amounts and projects involved in each instance were: Baltimore & Ohio, \$16,312,570 for freight car construction, 80 per cent; Buffalo, Rochester & Pittsburgh (B. & O.), \$5,330,839 for diesel-electric locomotive construction, 65 per cent; Erie, \$1,400,734 for freight car construction, 80 per cent; Pittsburg & Shawmut, \$1,400,000 for freight car construction, 80 per cent; Chicago, Rock Island & Pacific, \$181,194 for track construction, 65 per cent; and Seaboard Air Line, \$127,636 for construction of tracks, floodlights and signals, 65 per cent.

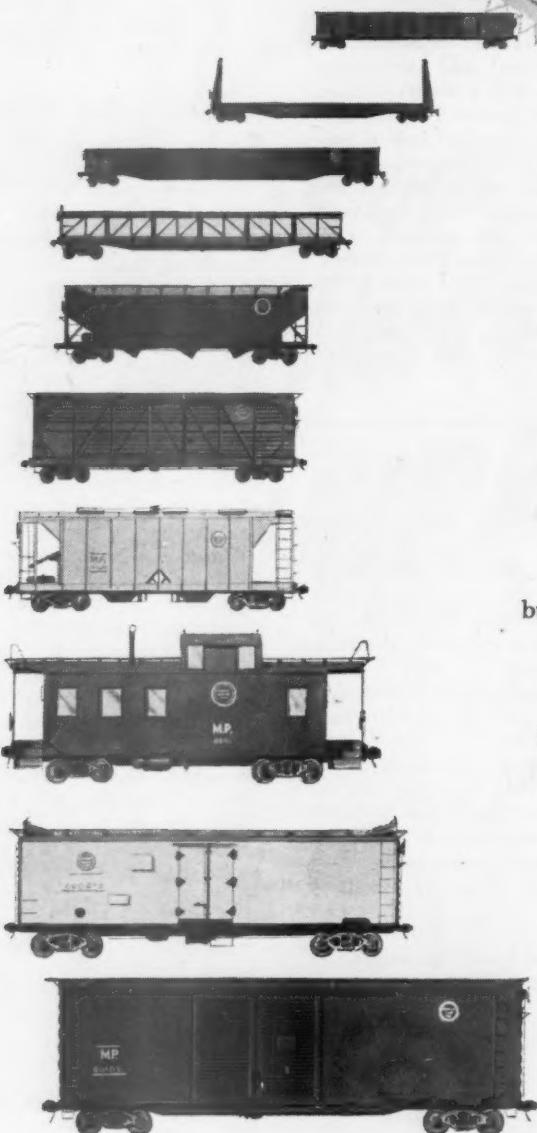
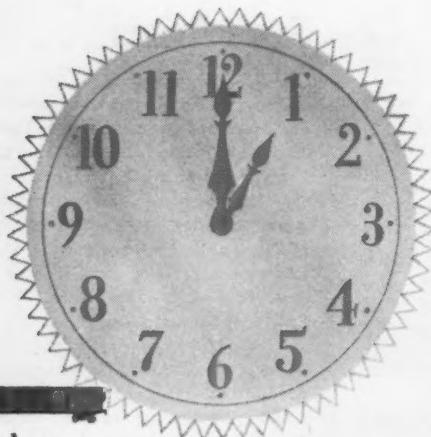
In addition, the American Smelting & Refining Co. of New York was issued certificates for 80 per cent of a freight car construction program totaling \$675,000.

Freight Car Loadings

Loadings of revenue freight in the week ended April 28 totaled 824,662 cars, the Association of American Railroads announced on May 3. This was an increase of 15,142 cars, or 1.9 per cent, compared with the previous week; an increase of 79,367 cars, or 10.6 per cent, compared with the corresponding week last year; and an increase of 39,218 cars, or 5.0 per cent, compared with the equivalent 1949 week.

Loadings of revenue freight for the week ended April 21 totaled 809,520
(Continued on page 72)

Every Hour



on the Hour

another new car
rolls out on the rails

SINCE IT OPENED its own freight car building facilities at De Soto, Mo., in 1947, Mo-PAC has built thousands of freight cars of every type . . . and is currently producing one new car every working hour. Mo-PAC is building sufficient cars to supply substantially all its own needs, and is in addition, contributing critically needed carrying capacity elsewhere throughout America.

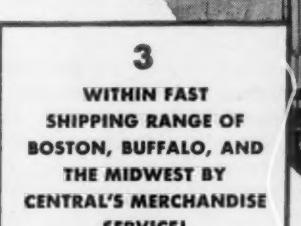
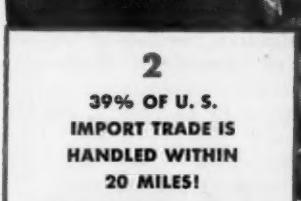
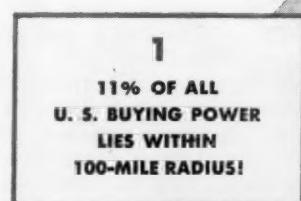
But important as its De Soto shops are, they constitute but one of the many facilities maintained by Mo-PAC . . . which have brought it recognition from shippers and passengers alike, as the "Modern . . . Progressive" railroad.



1851
A CENTURY
OF SERVICE
1951

SERVING THE WEST - SOUTHWEST EMPIRE

How Central can you get?



*Three reasons to locate
your new plant
on New York Central's
West Side Line—
only all-rail freight
route serving Manhattan*

FOR FACTS ON AVAILABLE SITES in this most central of all "CENTRAL" locations, contact Charles H. Morton, General Land and Tax Agent, or Walter R. Dallow, Manager Industrial Development. Ask them about the advantages of an in-the-plant siding. It's the way to enjoy the fullest benefit from New York Central's fast, all-weather freight service. A service in which this Railroad, since 1945, has invested \$473,000,000 for 58,000 new freight cars plus the Diesel power to pull them.

New York Central
The Smooth Water Level Route



(Continued from page 69)
cars; the summary for that week, as compiled by the Car Service Division, A.A.R., follows:

REVENUE FREIGHT CAR LOADINGS For the week ended Saturday, April 21			
District	1951	1950	1949
Eastern	142,937	134,288	139,187
Allegheny	168,130	153,834	166,238
Pocahontas	62,860	60,690	65,076
Southern	134,050	127,387	119,872
Northwestern	120,288	75,206	114,728
Central Western	120,766	114,399	109,038
Southwestern	60,489	56,884	55,208
Total Western Districts	301,543	246,489	278,974
Total All Roads	809,520	722,688	769,347
Commodities:			
Grain and grain products	50,295	42,074	43,632
Livestock	8,333	8,573	10,059
Coal	145,193	151,142	158,038
Coke	14,963	14,406	14,559
Forest products	48,241	41,053	37,955
Ore	67,304	16,604	69,596
Merchandise l.c.l.	79,868	84,386	93,094
Miscellaneous	395,323	364,450	342,414
April 21	809,520	722,688	769,347
April 14	777,989	707,385	765,943
April 7	739,523	700,049	757,784
March 31	755,435	720,404	725,623
March 24	748,804	717,259	596,329
Cumulative total 16 weeks	11,821,238	10,254,127	11,249,385

In Canada.—Carloadings for the week ended April 21 totaled 79,932 cars, compared with 79,737 cars for the previous week, and 71,925 cars for the corresponding week last year, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
April 21, 1951	79,932	35,198
April 22, 1950	71,925	33,044
Cumulative totals for Canada:		
April 21, 1951	1,201,351	580,443
April 22, 1950	1,099,269	483,524

Shoemaker Sees More "Shipper Understanding"

Speaking at the 12th annual dinner meeting of the Maine and New Hampshire section of the New England Shippers' Advisory Board, held at Portland, Me., on April 30, Perry M. Shoemaker, vice-president of the Lackawanna, said "By most accepted bases of comparison, our industry is substantially better off today than it was in 1929, yet we are not financially healthy. With good business, our average rate of return since the war has averaged only slightly over 3 percent. No business which cannot show a better rate of return in periods of good business can be considered financially healthy."

"The lag between higher wage costs and higher material costs and increased transportation rates is serious, and at no time have they been adequately matched," Mr. Shoemaker said; but he added that:

"I have enough confidence in the ingenuity of railroad management to believe that we are going to find ways of holding down our wage expenditures to a reasonable proportion of our revenue dollar."

"I am encouraged in the belief that there is greater shipper understanding today of railroad problems than has ever before prevailed, which is of incalculable value because preservation of a reasonable bal-

ance of transportation in this country means a continued improvement of all forms of transportation. They all have their place, but we must bring a national understanding which will result in each form of transportation standing upon its own feet. To that extent I am confident that the railroad industry will survive, not as an obsolete form of movement, but as a continuing dynamic force in our economic society. We have regulatory problems which are extremely serious, many of them having their inception in the days when railroads were a virtual monopoly. We must achieve regulatory understanding which will more readily permit our discontinuing non-profitable services and, consequently, permitting adjustments in rates within reasonable limitations."

"If we together, you who use the transportation machine and we who are a part of it, have faith in the future and faith in ourselves, I have no pessimism about the railroad outlook."

Hearing on Pension Bills

A Senate Labor and Public Welfare subcommittee, headed by Senator Douglas, Democrat of Illinois, opened hearings April 27 on pending proposals for amending the Railroad Retirement Act. Among the bills before the subcommittee were S. 1347, sponsored by the "non-ops," and S. 1353, sponsored by the operating brotherhoods.

G. E. Leighty, chairman of the Railway Labor Executives Association, and Lester P. Schoene, R.L.E.A. general counsel, were the first witnesses. They were in support of S. 1347. Mr. Leighty described legislative changes which the "non-ops" believe necessary to solve "the problems with which we have been wrestling," while Mr. Schoene made a detailed analysis of the changes S. 1347 would make in the present Railroad Retirement Act.

There is an "urgent necessity" that monthly benefit payments be increased to bring them more in line with the cost of living, Mr. Leighty declared. He said ordinary social security payments are often as high as those provided by the present retirement act, even though railroad employees pay a tax rate of 6 per cent on income up to \$300 a month, compared with a 1½ per cent rate under social security.

While it is important that railroad retirement continue on an independent basis, Mr. Leighty said, "we cannot justify the continuance of a condition in which an individual in railroad service, paying the higher tax rate, derives less benefit from that service than he would if he were covered by the Social Security Act."

Among other proposals discussed by Mr. Leighty was one calling for the introduction of a 10-year minimum service requirement as a condition of eligibility for railroad retirement benefits. Employees with less than 10 years would have such service credited under the Social Security Act.

The railroad population is a relatively higher cost segment of the total working population, and the railroad retirement system has relieved social

security of the "more expensive segment of the population," Mr. Schoene explained later. He added that to this extent railroad retirement has "subsidized" social security. Under the proposals contained in S. 1347, Mr. Schoene said, "the social security fund comes out at the same point it would if it had collected social security taxes on railroad employees and had paid social security benefits with respect to all railroad service."

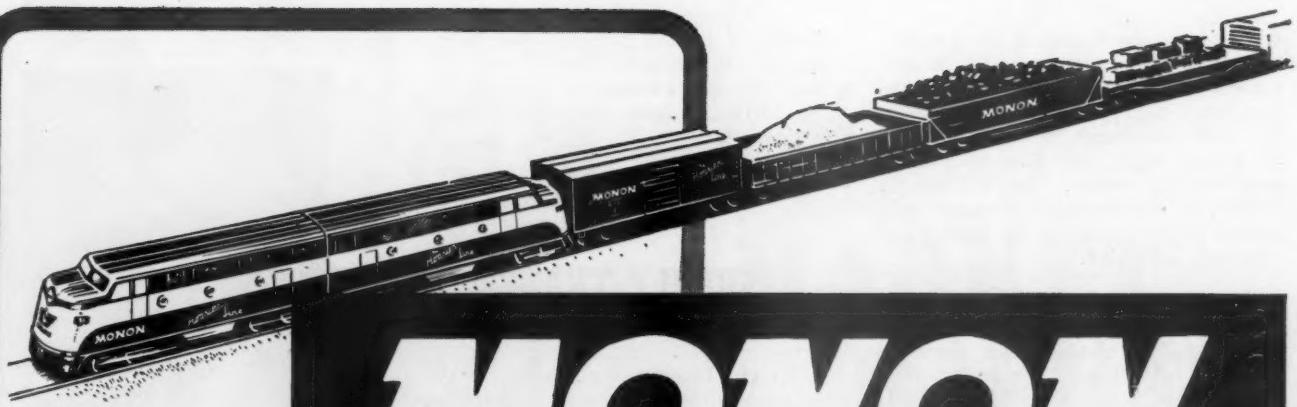
Joseph Musher, chief actuary for the Railroad Retirement Board, followed Mr. Schoene. He was questioned at length by Senator Douglas who reflected concern as to whether, under S. 1347, the retirement fund will be able to meet its obligations up to the year 2001 and beyond.

The hearings were continuing as this issue went to press, with representatives of the "ops" scheduled to present their views beginning May 3. Presentations on behalf of the railroads have been tentatively scheduled to begin May 11. On May 15 the House Interstate and Foreign Commerce Committee will open hearings on companion bills to S. 1347 and S. 1353, as well as about 30 other bills proposing changes in the retirement act.

ORGANIZATIONS

The Protective Section of the Association of American Railroads has announced the program for its 31st annual meeting to be held at the St. Francis Hotel, San Francisco, Cal., on May 8, 9 and 10. Among the speakers for the opening session are J. W. Corbett, vice-president — operations, Southern Pacific, and Gen. E. P. Parker, provost marshal general, U. S. Army, Washington, D. C. Vice-President H. C. Munson of the Western Pacific will be the first speaker of the May 10 session. Later, in the same session, members will learn of the tentative program for the National Railway Police Academy, scheduled to be held in Chicago June 4 through 15. Chairman W. G. Fetzner, chief special agent, Chicago, Burlington & Quincy, will preside at the sessions.

The annual meeting of the Freight Station Section of the Association of American Railroads will be held at Chicago's Congress Hotel, Tuesday-Thursday, May 15-17. C. F. Allan, chairman of the section and superintendent station service and weighing of the Canadian National, will preside. The opening session, featuring an address by John W. Barriger, president of the Chicago, Indianapolis & Louisville, will begin at 10 a.m. on May 15. The afternoon session will be devoted to the docket of the committee on station traffic. At 9 a.m.



MONON

Fast Freight SAVES CAR-DAYS



Getting the fastest turn-around from each car can do much to save car-days and relieve the strain of car shortages. This road's personnel is aware of this fact and is keyed-up to meet the situation in every possible way. *Monon fast freight service* now assures overnight deliveries between all points on its line. Better cooperation all down the line saves car-days and gets maximum service from every car. Careful, efficient handling helps further to avoid delays.

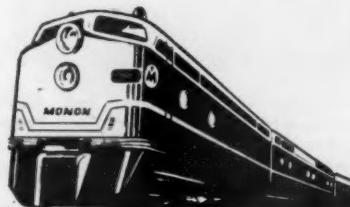
This is one of the important "pluses" of our "service-with-a-plus." On your next shipment into or by-way-of Indiana specify Monon. Prove to yourself that "The Hoosier Line" means business.



MONON

THE HOOSIER LINE

CHICAGO, INDIANAPOLIS AND LOUISVILLE RAILWAY COMPANY



on the 16th, the docket of the committee on loss and damage will be discussed, while in the afternoon of the same day the papers considered will be those presented to the committee on station office operation. The Thursday morning session, May 17, will be devoted to consideration of papers submitted to the committee on station and terminal operation.

The Eastern Car Foreman's Association will hold its next meeting in room 502, Engineering Societies building, 29 West 39th street, New York, on May 11, at 7:45 p.m. K. L. Selby, chief engineer, railway division, National Malleable & Steel Castings Co., will present a paper on "Train Partings—Causes and Remedies." A buffet-supper preceding the meeting will be held in the Old Timers Grill, 7 East 40th street, at 6 p.m.

Principal railroad speaker at the Conference on Industrial Traffic to be held May 17-18 at the University of Tennessee (*Railway Age*, April 30) will be Walter J. Kelly, vice-president, traffic, Association of American Railroads. Highlighting the two-day conference will be a "give-and-take" session on rail and motor carrier rates in the South, handled by J. G. Kerr, chairman of the Southern Freight Association, and W. M. Miller, general manager of the Southern Motor Carriers Rate Conference.

The Railway Business Women's Association of Chicago has announced a spring luncheon to be held at the Edgewater Beach Hotel on May 12 at 1 p.m. A highlight of the program will be announcement of newly elected officers. Marie C. Miller, present president, will preside.

The Railroad Section of the National Fire Protection Association will hold its annual meeting on May 7, at the Hotel Statler, Detroit, in connection with the association's annual meeting which continues through until May 11. The section's program will be conducted by Chairman C. D. Dawson, of the Fire Protection & Insurance Section of the Association of American Railroads. General Manager Percy Bugbee of the N.F.P.A. and Secretary W. E. Todd of the F.P.I. Section will also participate in the program. Topics slated for open discussion include: Fumigation of passenger equipment; emergency fuel storage; gasoline operated equipment in refrigerator cars; fire protection for diesel locomotives; sprinkler systems; and repairs to ships while docked at railroad piers.

The Chicago Chapter of the Railway & Locomotive Historical Society will hear a talk by G. C. Felton, engineer of telegraph and signals in the office of chief engineer of the Pennsylvania at Philadelphia, on "Signaling, C.T.C., and Related Subjects." Mr. Felton will illustrate his talk with

slides and motion pictures. The meeting will be held on May 11 at 7:30 p.m. in Room 1552 of the Field building, 120 W. Adams street. The public is invited.

SUPPLY TRADE

J. O. Chesley, manager of the railroad division of the Aluminum Company of America since 1944, has retired. No immediate successor will be named to his present position. Mr. Chesley was graduated from Brown University in 1911, with a bachelor of science degree in mechanical engineering and, in the same year, joined Alcoa as a sales apprentice in



J. O. Chesley

the New Kensington, Pa., office. In 1913 he was appointed manager of the district office in Detroit, and, two years later, was transferred to the Pittsburgh district sales office. He served in the United States Navy during World War I, and, when he returned to Alcoa, he was appointed mechanical engineer in the Pittsburgh sales department.

Robert J. Beeson, executive vice-president of the Mather Stock Car Company at Chicago, has been elected president. Arthur H. Douglas, Jr., vice-president and treasurer, has been elected executive vice-president and secretary, and Robert L. Belt becomes assistant to executive vice-president and assistant secretary. Mr. Belt retains the title of auditor of A.A.R. accounts in addition to his new duties.

A. R. Gaus has been elected vice-president in charge of sales of the Midvale Company, to succeed Henry H. Ziesing, retired.

Burton S. Dow, Jr., has been appointed manager of the Pittsburgh warehouse of the Georgia-Pacific Plywood Company.



J. D. Gunther, who has been elected a vice-president of the Air Reduction Company. Mr. Gunther has been secretary of the company since 1946

Thomas F. Kearney, formerly diesel service supervisor for the Baldwin-Lima-Hamilton Corporation at Chicago, has been appointed transportation sales representative for the Chicago district. James M. Barnhill has been appointed to succeed Mr. Kearney as diesel service supervisor.

Fred H. Spenner, formerly vice-president in charge of mechanical engineering of the Scullin Steel Company, St. Louis, Mo., has been appointed vice-president and executive assistant to the president.

D. S. Hoffman, vice-president of Peerless Equipment Company (a subsidiary of Poor & Co.), at Chicago, has resigned to enter business for himself.

The Aluminum Company of America will build a new aluminum



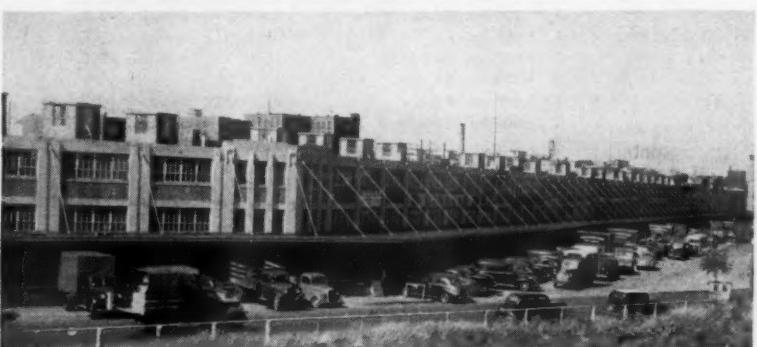
Thomas A. Willson, who has been elected a vice-president of Willson Products, Inc., Reading, Pa. Mr. Willson also will continue as assistant secretary, which position he has held since 1947



Operation MARKET BASKET



View of New Haven's Boston Market Terminal. Its three-acre capacity can handle 550 carloads at one time.



Providence Market Terminal, with 224,000 square feet of floor space, serves a metropolitan population of nearly a million.

Most of the food consumed in New England enters this area via New Haven Railroad. So important is this operation that New Haven has a fleet of high speed "symbol" trains to expedite food shipments for New England's billion dollar market basket.

New Haven serves market terminals at major New England distribution centers . . . Boston . . . Providence . . . New Haven . . . Harlem River, serving the great New York market . . . at Hartford, another is under construction.

Such foresight and planning, successfully insuring New England's most important commodity of all — food — is evidence of New Haven's ability to provide reliable, fast rail service for all types of shipments.

Industrial shippers may depend upon New Haven's know-how, operational facilities, speed and efficiency to solve their freight problems, as well.



Shipping to or from NEW ENGLAND?

INSIST, VIA

NEW HAVEN

FOR ROUTES, RATES AND SERVICE CONTACT:
General Freight Dept.—South Station, Boston 10, Mass. HUbbard 2-7800

smelting plant at Wenatchee, Wash. The plant will be capable of supplying 170,000,000 pounds of aluminum annually; production is expected to begin within 15 months.

The Union Asbestos & Rubber Co. has announced acquisition of the business of Dromgold & Glenn, Chicago, suppliers of refrigeration equipment for refrigerator cars, trucks and trailers. Henceforth the business will be operated as the Dromgold & Glenn division of Union Asbestos & Rubber, under the direction of the latter's vice-president, W. H. Fehrs.

OBITUARY

Frank P. Roesch, retired vice-president of the Standard Stoker Company, died at his home in Chicago on April 28, at the age of 87. Mr. Roesch was widely known in railway and railway supply circles for his activities in connection with fuel economy on steam locomotives and organizing mechanical supervisory associations dedicated to more efficient use of motive power.

Howard A. Glenn, owner of Dromgold & Glenn, Chicago, suppliers of refrigeration equipment for refrigerator cars, trucks and trailers, died on April 27 at his home in Oak Park, Ill. This business will henceforth be operated as the Dromgold & Glenn division of Union Asbestos & Rubber Co., as reported elsewhere in this issue.

CAR SERVICE

Second Revised I. C. C. Service Order No. 856 supplanted Revised Service Order No. 856, effective May 1. The new order requires that Saturdays be included in computing demurrage, regardless of whether they occur before or after the expiration of free

CAR SURPLUSES, SHORTAGES

Average daily freight car surpluses and shortages—the shortages being the lowest for any week since last June—for the week ended April 28 were announced by the Association of American Railroads on May 3 as follows:

	Surplus	Shortage
Plain Box	0	4,321
Auto Box	30	163
Total Box	30	4,484
Gondola	89	2,672
Hopper	0	1,305
Covered Hopper	0	28
Stock	975	111
Flat	0	792
Refrigerator	5,674	0
Other	485	12
Total	7,253	9,404

time. Meanwhile, it eliminates Sundays from the computation, thus making all Sundays free days. The supplanted order required that both Saturdays and Sundays be counted—but only if they occurred after the expiration of free time. Like its predecessor, the new order exempts from its provisions cars handled at ports.

Special Car Orders Nos. 78 and 79, issued by Chairman A. H. Gass of the Car Service Division, A.A.R., became effective May 1. They require the expedited return home of box cars owned by 12 Western roads.

were reported in *Railway Age* in April. Estimated cost of the locomotive units is \$35,500,000; of the freight-train cars \$50,015,000; and of the passenger cars \$435,000. An accompanying table lists the orders in detail.

During the first four months of 1951, *Railway Age* has reported domestic orders for 1,008 diesel-electric locomotive units and 6 steam locomotives costing an estimated \$158,500,000; 47,730 freight-train cars costing an estimated \$270,935,000; and 72 passenger cars costing an estimated \$10,785,000.

FREIGHT CARS

The Canadian National has ordered 75 70-ton longitudinal hopper cars from the National Steel Car Corporation at a cost of over \$600,000.

The New York, New Haven & Hartford is inquiring for 550 70-ton hopper cars.

LOCOMOTIVES

The Union Pacific has ordered 52 diesel-electric locomotive units. The (Continued on page 79)

EQUIPMENT AND SUPPLIES

Domestic Equipment Orders Reported in April

Domestic orders for 237 diesel-electric locomotive units, 8,500 freight-train cars and three passenger cars

Locomotives				
Purchaser	No.	Type	Issue Reported	Builder
A. & W. P.	1	1,200-hp. Switching	April 30	Baldwin-Lima-Hamilton
C. & O.	12	2-unit 4,500-hp. Pass.	April 30	Electro-Motive
	3	2,250-hp. Passenger	April 30	Electro-Motive
	21	1,200-hp. Switching	April 30	Electro-Motive
	59	1,500-hp. Rd.-Sw.	April 30	G.M. Diesel, Ltd.
C. B. & Q.	23	1,500-hp. Rd.-Sw.	April 30	Electro-Motive
C. R. I. & P.	25	1,500-hp. Rd.-Sw.	April 23	Electro-Motive
	15	1,500-hp. Suburban	April 23	American-G.E.
	5	1,600-hp. Rd.-Sw.	April 23	American-G.E.
G. M. & O.	3	1,600-hp. Rd.-Sw.	April 30	American-G.E.
L. S. & I.	3	1,000-hp. Switching	April 30	American-G.E.
M. & St. L.	3	1,000-hp. Rd.-Sw.	April 30	American-G.E.
M.I.	1	1,600-hp. Rd.-Sw.	April 30	American-G.E.
St. J. & L. C.	1	600-hp. Switching	April 30	General Electric
U. S. Steel	8	1,200-hp. Switching	April 30	Baldwin-Lima-Hamilton
	8	1,200-hp. Switching	April 30	Fairbanks, Morse
	1	2,250-hp. Passenger	April 30	Electro-Motive
	6	2-unit 3,000-hp. Frt.	April 30	Electro-Motive
	10	1,500-hp. Rd.-Sw.	April 30	Electro-Motive
	5	1,200-hp. Switching	April 30	Electro-Motive
	2	2-unit 3,000-hp. Frt.	April 30	G.M. Diesel, Ltd.
	1	1,500-hp. Rd.-Sw.	April 30	G.M. Diesel, Ltd.
Wabash	1	800-hp. Switching	April 30	G.M. Diesel, Ltd.

Freight Cars				
Purchaser	No.	Type	Issue Reported	Builder
Clinchfield	500	50-ton Hopper	April 23	Pullman-Standard
D. & M.	100	50-ton Box	April 23	General American
F. E. C.	75	70-ton Cov. Hopper	April 23	Pullman-Standard
G. T. W.	300	70-ton Gondola	April 2	General American
	250	50-ton Box	April 2	General American
I. T.	150	70-ton Hopper	April 23	General American
	100	50-ton Gondola	April 23	Pressed Steel Car
M. St. P. & S. Ste. M.	350	50-ton Box	April 23	R. R. Shops
	200	50-ton Gondola	April 23	R. R. Shops
N. Y. C.	2,500	55-ton Hopper	April 23	Despatch Shops
	1,000	55-ton Box	April 23	Despatch Shops
	200	Caboose	April 23	St. Louis Car
	50	12,500-gal. Tank	April 23	General American
	1,000*	55-ton Hopper	April 23	Pullman-Standard
N. P.	250	70-ton Gondola	April 30	Amer. Car & Fdy.
P. & W. V.	5	30-ton Caboose	April 16	Intl. Ry. Car & Equip.
R. F. & P.	50	70-ton Gondola	April 23	General American
Union Tank Car	50	11,000-gal. Tank	April 23	Amer. Car & Fdy.
Western Fruit Express	300	50-ton Refrigerator	April 23	Co. Shops
W. M.	1,000	55-ton Hopper	April 9	Bethlehem Steel
	70	70-ton Flat	April 9	Greenville Steel Car

* For the Pittsburgh & Lake Erie.

Passenger Cars				
Purchaser	No.	Type	Issue Reported	Builder
L. V.	2	RDC-2	April 9	Budd
Wabash	1	Dome-Parlor-Lounge	April 23	Pullman-Standard

Every 2½ Minutes

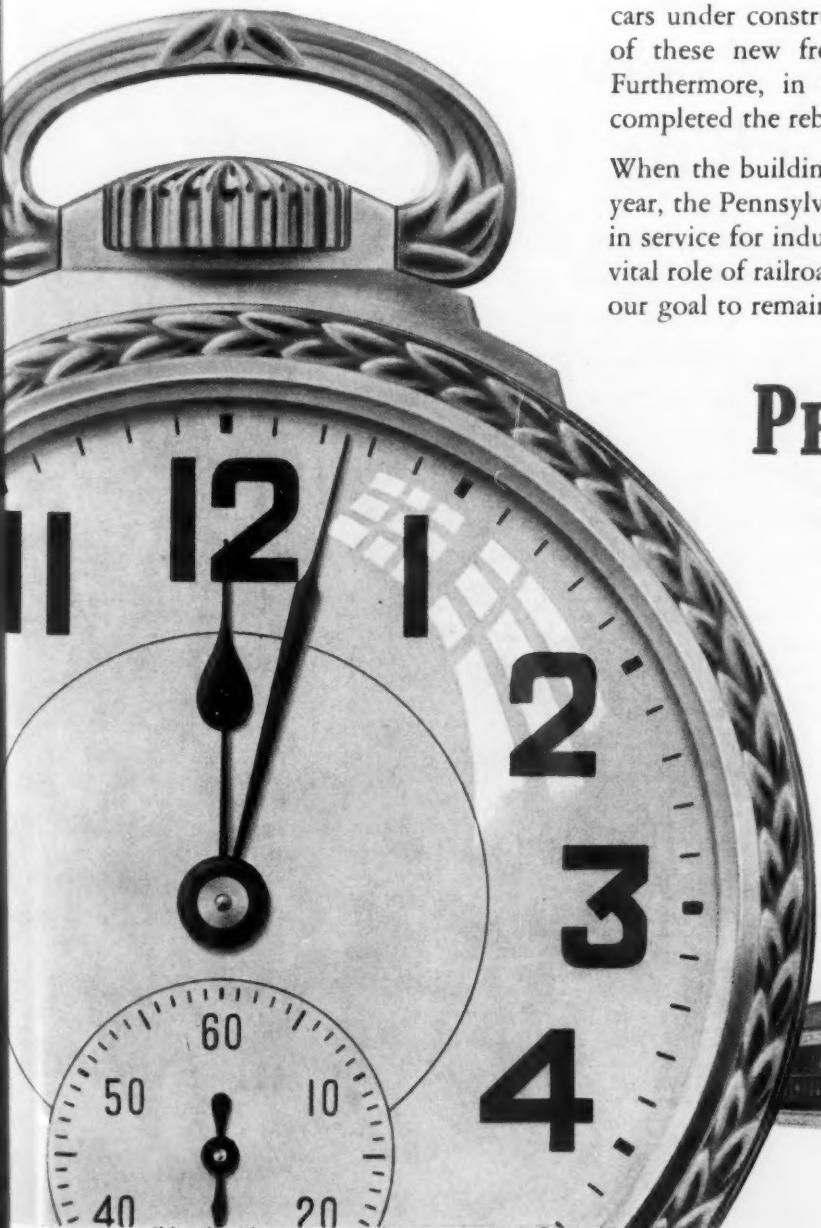
**ANOTHER NEW OR REBUILT FREIGHT CAR GOES
TO WORK FOR THE PENNSYLVANIA RAILROAD**

For any transportation requirement of industry or defense, new and rebuilt freight cars are going into Pennsylvania Railroad service this year at an unprecedented rate . . . on the average, a car every 2½ minutes of the working day . . . hopper cars, box cars, gondolas and flat cars.

Many car shops, including our own, are working on this freight car production program. From the car builders last year we ordered 20,000 new box cars and gondolas, the biggest freight car order in railroad history. These are in addition to 6,610 new cars under construction in our own shops. More than 14,000 of these new freight cars have been built and delivered. Furthermore, in the Pennsylvania's shops we have almost completed the rebuilding of 34,000 freight cars.

When the building and rebuilding program is completed this year, the Pennsylvania will have more than 200,000 freight cars in service for industry and defense. World War II revealed the vital role of railroad transportation. Ever since then it has been our goal to remain ready for any emergency.

**PENNSYLVANIA
RAILROAD**





"Funeral Train" of 14 Soo Line Steam Locomotives heads for scrap pile

We're Losing Our Steam- *But Picking Up Power!*

Like the romantic Yankee Clipper of a century ago, Soo Line steam engines are yielding to the relentless march of progress.

We hate to see them go.

Their roaring fire pits sparked an era of tremendous progress. Nightly, their lonely, haunting whistles wakened dreams of adventure. The men who knew them best, Soo Line engineers, had deep respect for their ability to work.

But their work is done.

Now, efficient Diesel-electric locomo-

tives polish Soo Line rails that steam engines followed so long. The Diesel-electric locomotives haul more tonnage and they haul it faster. They're smoother on starts and stops, easier on your shipments. They do a lot better job for the shipper and for Soo Line. They have more of everything that's good—except pulse-stirring personality.

But—sentiment can't move freight, so Soo Line is losing its steam—better to serve you the length and breadth of Soo Line Land.

your working partner



(Continued from page 76)

Electro-Motive Division of General Motors Corporation will build 30 1,500-hp. freight and eight 2-unit 2,400-hp. yard-switching locomotives, and the Baldwin-Lima-Hamilton Corporation will construct six 1,600-hp. road-switching units. The road's intention to purchase the road- and yard-switching units was reported in last week's *Railway Age*, page 48.

SIGNALING

The St. Louis-San Francisco has ordered from the Union Switch & Signal Co. material to install centralized traffic control on approximately 56 miles of single track between Fort Scott, Kan., and Paola. The 2½-ft. style C control machine will be located at Fort Scott division headquarters. In addition to code equipment, the order includes style H-2 high and dwarf searchlight signals, M-3 electric switch machines, SL-6A electric switch locks, relays, rectifiers and transformers. Installation will be handled by railroad forces.

IRON & STEEL

The L. B. Foster Company, Houston, Tex., has announced receipt of a contract to furnish 44 miles of 85-lb. rail for installation at the U. S. Naval Ammunition Depot at Camden, Ark. The contract covers a total of 4,300 tons of equipment, including angle bars, tie plates, spikes, frog and switch equipment and other track accessories.

FINANCIAL

Atchison, Topeka & Santa Fe.—*Division of Stock.*—The two-for-one split of common and preferred stock proposed by the board of directors last January 30 (*Railway Age*, February 5, page 76) was approved by the necessary majority of holders of each class of stock at a meeting held at Topeka, Kan., on April 26. Subject to approval of the I.C.C., the split will become effective on August 1 of this year. President Fred G. Gurley said the division of the stock into two \$50-par shares for each existing \$100-par share would promote wider distribution and, in turn, greater public interest in the company. Approximately 77 per cent of all outstanding stock of the company was represented in person or by proxy at the meeting, and more than 99 per cent of the votes favored the stock split.

New Jersey & New York.—Reorganization.—Peter Duryee, trustee of this company, has filed in the United States District Court for the District of New Jersey a proposed plan of reorganization which differs in several

important respects from the plan recently filed for it with the I.C.C. by the Erie (*Railway Age*, March 12, page 105). The present N. J. & N. Y. plan places the value of its property and franchises at "approximately \$1,722,960," and proposes a new capital structure of that amount, consisting of:

(1) \$700,000 of 25-year 3½ per cent first mortgage bonds, secured by a first lien on all N. J. & N. Y. property in New Jersey, to be delivered to the state in lieu of \$453,093.44 in unpaid state and municipal taxes for the years 1933-1949, inclusive, together with interest thereon;

(2) \$394,000 in new 50-year 3 per cent second mortgage bonds, to be exchanged for an equal amount of presently outstanding first mortgage bonds;

(3) \$628,960 in new 50-year 3 per cent general mortgage bonds, to be exchanged for \$960 of presently outstanding second

mortgage bonds and \$628,000 of presently outstanding general mortgage bonds; and

(4) Such amount of common stock of the reorganized company as the reorganization managers shall determine, to be issued pro rata to holders of present first, second and general mortgage bonds.

Until the new first mortgage bonds are paid in full—for which purpose a sinking fund would be established—the state of New Jersey would have the right to elect one director of the reorganized company. Holders of the new second and general mortgage bonds would each have the right, as a class, to elect two directors. The state, and present first and general mortgage bondholders, could each select one reorganization manager.

No provision would be made in the proposed plan for claims of general

Selected Income and Balance-Sheet Items of Class I Steam Railways in the United States

Compiled from 127 reports (Form IBS) representing 131 steam railways

(Switching and Terminal Companies Not Included)

	United States For the month of January	
	1951	1950
1. Net railway operating income.....	\$77,690,910	\$32,975,905
2. Other income.....	19,636,593	20,184,546
3. Total income.....	97,327,503	52,980,451
4. Miscellaneous deductions from income.....	4,505,435	3,684,067
5. Income available for fixed charges.....	92,822,068	49,296,384
6. Fixed charges:		
6-01. Rent for leased roads and equipment.....	9,819,158	8,527,290
6-02. Interest deductions ¹	24,825,788	24,834,404
6-03. Amortization of discount on funded debt.....	216,397	202,364
6-04. Total fixed charges.....	34,861,343	33,564,058
7. Income after fixed charges.....	57,960,725	15,732,326
8. Other deductions.....	3,035,152	3,230,886
9. Net income.....	54,925,573	12,501,440
10. Depreciation (Way and structures and Equipment).....	36,441,925	34,790,293
11. Amortization of defense projects.....	1,898,759	1,383,490
12. Federal income taxes.....	57,151,311	16,754,467
13. Dividend appropriations:		
13-01. On common stock.....	10,055,982	5,504,169
13-02. On preferred stock.....	6,764,695	4,046,433
Ratio of income to fixed charges (Item 5 + 6 - 04).....	2.66	1.47

	United States Balance at end of January	
	1951	1950
17. Expenditures (gross) for additions and betterments—Road.....	\$22,692,227	\$20,470,125
18. Expenditures (gross) for additions and betterments—Equipment.....	67,316,885	40,036,984
19. Investments in stock, bonds, etc., other than those of affiliated companies (Total, Account 707).....	471,100,886	475,883,082
20. Other unadjusted debits.....	101,377,243	104,049,593
21. Cash.....	950,279,743	831,862,687
22. Temporary cash investments.....	1,036,055,372	774,855,211
23. Special deposits.....	125,268,289	117,306,381
24. Loans and bills receivable.....	1,674,746	1,078,026
25. Traffic and car-service balances—Dr.....	63,755,853	48,857,017
26. Net balance receivable from agents and conductors.....	155,778,597	120,246,890
27. Miscellaneous accounts receivable.....	466,664,139	271,990,933
28. Materials and supplies.....	757,436,927	726,259,334
29. Interest and dividends receivable.....	12,788,954	12,224,450
30. Accrued accounts receivable.....	228,344,196	149,029,010
31. Other current assets.....	38,606,893	32,230,692
32. Total current assets (items 21 to 31).....	3,836,653,709	3,085,940,631

	Selected Liability Items	
40. Funded debt maturing within 6 months ²	\$146,004,003	\$187,452,253
41. Loans and bills payable ³	1,755,500	8,882,740
42. Traffic and car-service balances—Cr.....	97,535,200	72,358,441
43. Audited accounts and wages payable.....	533,711,679	434,199,413
44. Miscellaneous accounts payable.....	239,415,538	208,363,355
45. Interest matured unpaid.....	32,103,470	33,811,688
46. Dividends matured unpaid.....	7,261,807	9,300,883
47. Unmatured interest accrued.....	82,453,866	82,765,378
48. Unmatured dividends declared.....	22,108,715	24,277,153
49. Accrued accounts payable.....	213,315,168	170,484,476
50. Taxes accrued.....	975,990,723	600,487,012
51. Other current liabilities.....	92,704,587	76,464,197
52. Total current liabilities (items 41 to 51).....	2,298,356,253	1,721,391,741
53. Analysis of taxes accrued:		
53-01. U. S. Government taxes.....	827,709,230	460,676,771
53-02. Other than U. S. Government taxes.....	148,281,493	139,810,241
54. Other unadjusted credits.....	276,980,266	260,117,301

¹ Represents accruals, including the amount in default.

² Includes payments of principal of long-term debt (other than long-term debt in default) which becomes due within six months after close of month of report.

³ Includes obligations which mature not more than one year after date of issue.

Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission.

Subject to revision.



62 YEARS of Transportation

Since 1889 the Terminal Railroad Association has provided St. Louis railroads and industry with reliable and dependable transportation.

SWITCHING IS OUR BUSINESS. The Terminal is well equipped with the personnel, motive power, and general railroad plant to render the service necessary to keep thousands of freight cars moving daily through the St. Louis gateway.

TERMINAL FACILITIES INCLUDE:

5200 trained employees
56 steam engines
82 Diesel locomotives
400 miles of track
30 public delivery yards

St. Louis Union Station
2 bridges spanning the Mississippi River
An icing station for icing perishable freight

A 15-ton self-service crane in Compton Avenue public delivery yard for use without charge by Terminal patrons to load and unload heavy car-load freight.

THE VALUE OF A TERMINAL SYSTEM. The Terminal Railroad is in effect an extension of the trunk line railroads entering the Metropolitan area of St. Louis. Its miles of tracks are the connecting links between these railroads and the industries served by the Terminal. An industry located on Terminal rails is assured of access to the services of all the trunk line railroads with which the TRRA connects. This is equivalent to having all these lines come to the shipper's door . . . truly an ideal arrangement of inestimable value to the business and industrial life in this community.

TERMINAL RAILROAD ASSOCIATION OF ST. LOUIS

creditors, of shareholders, or of the Erie, which has asserted a claim against the N. J. & N. Y. for \$1,739,332 for expenses incurred during the latter's reorganization proceedings and a secondary claim of \$5,803,983.62 which antedates the beginning of those proceedings on June 30, 1938. The latter claim, Mr. Duryee's petition says, would be "wiped out" by counter claims of the N. J. & N. Y. against the Erie. The Erie also owns or controls \$1,082,800 of the N. J. & N. Y.'s \$1,440,800 of common stock and \$779,400 of its \$787,800 of preferred stock.

In support of the proposed plan, Mr. Duryee's petition to the court states that:

"Net railway operating loss before fixed charges from 1939 through 1949 averaged approximately \$162,417.64 per year. . . . On the basis of changes affecting efficiency of operations, increased earnings by reason of increased divisions and new business there will be total savings and increased revenues to the debtor of approximately \$400,000 per year, or resultant net income before fixed charges of at least \$240,000 per year."

With respect to "new business," the petition declares that "as a result of normal industrial expansion in the territory served by the railroad," freight revenues increased from \$312,537 in 1949 to \$409,150 in 1950, thus "reversing" the "revenue trend" under which "more than half the gross revenue was from passenger operation and practically all of such revenue from commuter traffic." Passenger revenue declined from \$353,753 in 1949 to \$338,838 in 1950.

New Securities

Applications have been filed with the I.C.C. by:

ASHLEY, DREW & NORTHERN.—To issue 12,000 additional shares of capital stock for distribution among the road's present stockholders. In its application the road said operations have been "increasingly successful," and the present ratio between earnings and stock "indicates strongly" that too little stock is authorized and outstanding. There are 12,000 shares of \$25 par value authorized at present. The A.D.&N. is a 41.5-mi. line between Crossett, Ark., and Monticello.

MINNEAPOLIS, NORTHFIELD & SOUTHERN.—To capitalize retained earnings by issuing 21,150 shares of new \$100 par common stock, to be divided pro rata among present stockholders. In its application the road said it has used \$3,198,971 of retained earnings since July 31, 1941, for additions and betterments, bond retirement, and working capital. It said it would be "highly desirable" to have the amount of stock outstanding more nearly equal to the investment in property held for and used in transportation service. At present the road has 10,575 shares of \$100 par stock outstanding. After issuing the new stock the road would still have \$1,463,544 in unappropriated earned surplus.

Division 4 of the I.C.C. has authorized:

ILLINOIS CENTRAL.—To assume liability for \$6,800,000 of series EE equipment trust certificates, to reimburse its treasury, in part, for expenditures made for new equipment since May 31, 1948. (See *Railway Age* of March 5, page 82). Depreciated book value of this equipment, as of April 1, 1951, was \$9,449,874. The certificates will be dated April 1, and will mature in 20 semiannual installments of \$340,000 each, beginning October 1, 1951. Division 4 approved a selling price of 99.259 with interest at 2% per cent—the bid of Salomon Bros. & Hutzler and 3 associates—which will make the average annual cost of the proceeds approximately 3.04 per cent. The certificates were reoffered to the public at prices yielding from 2.15 to 3 per cent, according to maturity.

UNION OF PITTSBURGH.—To issue two unse-



Two high speed, Diesel powered freights pass on the main line.

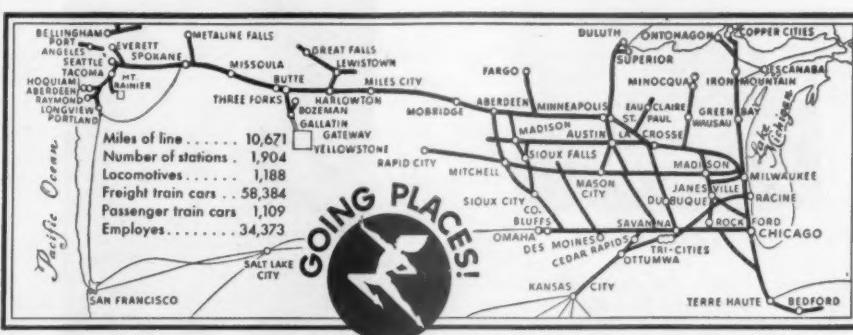
GOING PLACES!

1512 trains every week, on the move from down deep in the Hoosier State west to the closest place to the Orient in continental U. S. A. There's a seasoned, high speed steel roadway *under* these trains—and *on* them the output of factories, farms and mines—America's productivity on parade.

Yes, the progressive Milwaukee Road is *going places* and is ready now to do its biggest job in the best way on war or home fronts.

Milwaukee Road agents are in principal cities. Ask the one nearest you to bring you up to date about what's been put into the Railroad to give you better service.

SHIP-TRAVEL



THE MILWAUKEE ROAD ROUTE OF THE HIAWATHAS

CHICAGO, MILWAUKEE, ST. PAUL AND PACIFIC RAILROAD

cured promissory notes, totaling \$7,300,000, to its parent company, the United States Steel Corporation, as evidence of money previously advanced to the road. (*Railway Age*, April 9, page 74.)

Dividends Declared

Cleveland & Pittsburgh.—4% special, 50¢, quarterly; 7% guaranteed, 87½¢, quarterly, both payable June 1 to holders of record May 10.
Illinois Central.—75¢, quarterly, payable July 2 to holders of record June 6.
Montgomery & Erie.—17½¢, semiannual, payable May 10 to holders of record May 1.
Nashville, Chattanooga & St. Louis.—75¢, quarterly; 25¢, extra, both payable June 1 to holders of record May 8.
Norfolk & Western.—75¢, quarterly, payable June 8 to holders of record May 9.

Security Price Averages

	May 1	Last Week	Last Year
Average price of 20 representative railway stocks	56.68	55.37	42.58
Average price of 20 representative railway bonds	95.18	95.25	92.05



Frank W. Flannigan, general manager of the Chicago, Aurora & Elgin, who has been appointed vice-president and general manager

RAILWAY OFFICERS

EXECUTIVE

As reported in *Railway Age* April 23, Milton G. McInnes has been appointed vice-president, operations and maintenance, of the ERIE at Cleveland. Mr. McInnes was born at Boston on March 17, 1905, and received his A.B. degree from Dartmouth College in 1930. He entered railroad service in 1930 as a dock clerk with the Erie at New York and subsequently served as yardmaster, general yardmaster, chief clerk to superintendent of transportation, inspector of operation,



Milton G. McInnes

trainmaster and assistant superintendent. In 1940 Mr. McInnes was appointed superintendent of the Buffalo and Rochester divisions and the following year became assistant general manager of the Western district at Youngstown, Ohio, transferring to the Eastern district at Jersey City in 1942. He was promoted to general manager of that district at Jersey City in October 1948 and in December 1949 became assistant vice-president of operations at Cleveland, which position he held until his recent promotion.

FINANCIAL, LEGAL & ACCOUNTING

Morris W. Mashburn, auditor of disbursements of the NASHVILLE, CHATTANOOGA & ST. LOUIS, has been elected comptroller, with headquarters as before at Nashville, Tenn., succeeding L. E. McKeand, who will continue in an advisory capacity. P. G. Cunningham has been appointed assistant auditor of disbursements, succeeding H. G. White, who has been promoted to auditor of disbursements. Mr. Mashburn was born at Tunica, Miss., on June 8, 1897, and attended Vanderbilt University. He entered railroad service in March 1916 in the ticket accounting department of the N.C. & St.L. and subsequently served in various accounting posts. In December



Morris W. Mashburn

1943 he was appointed assistant to comptroller, and on March 1, 1947, became auditor of disbursements.

Mr. McKeand was born in 1877 at

Nashville and entered railroad service in 1896 as a clerk and stenographer in the engineering department of the N.C.&St.L. He subsequently served as chief clerk, valuation auditor, auditor of miscellaneous accounts, treasurer, assistant to president, assistant comptroller and comptroller.

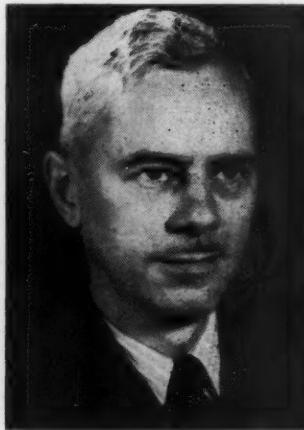
S. T. Hulin, assistant secretary of the RAILWAY EXPRESS AGENCY at New York, retired on April 30, after 50 years of service.

E. J. Seahill, assistant auditor freight traffic of the CHICAGO, ROCK ISLAND & PACIFIC, has been promoted to auditor freight traffic, with headquarters continuing at Chicago. He is succeeded by C. W. Ames, who has served in numerous capacities in the auditing department.

A. B. Enoch, general solicitor of the CHICAGO, ROCK ISLAND & PACIFIC, has retired after 41 years of service. He is succeeded by Bruce Dwinell, general attorney. Eaton Adams, general attorney, has been promoted to assistant general counsel, and Thomas I. Megan, assistant general attorney, to general attorney. Mr. Enoch is a native of Alton, Iowa, and started his Rock Island career in 1909 as assistant attorney. He was advanced to general attorney in 1914 and to assistant general solicitor in 1941, becoming general solicitor in 1948.

OPERATING

Howard C. Grayston, chief of car service of the CANADIAN NATIONAL at Montreal, has been appointed manager of the Newfoundland district at St.



Howard C. Grayston

John's, Nfld., succeeding Frank Simpson, who has returned to the vice-president's office at Montreal as chief of car service of the system. Mr. Grayston was born at Wimbledon, London, England, in 1901 and entered railroad service in 1916 as clerk with the Canadian Northern (now C.N.) at Toronto. He advanced through various positions to general supervisor car service, and in 1948 became chief of car service at Montreal.
(Continued on page 85)



Photo by Josef A. Schneider

We put 'em together...so!

It's like this, see? For example, a train-load of freight cars comes rolling in to North Platte, Nebraska. Some cars are headed for one place, some for another. First we pull 'em apart. Then we put together those cars headed for the same destination.

It used to take quite a time to do this double job entirely with switch engines. But in our modern classification yards at North Platte and Pocatello we've licked that problem. We push the cars to the top of an incline from where each car, its

speed carefully controlled by electrically operated retarders, rolls down one of a number of tracks to be automatically grouped with its "mates."

Thus, **switching time is cut in half.** It's just one way we have of speeding up your freight.

• • •

Call your nearest Union Pacific freight representative for information, or help in solving traffic problems.

Be Specific - Ship "Union Pacific"

[Offices in 70 cities throughout the U. S. A.]



**On the Oregon Trail
with Jim Bridger**

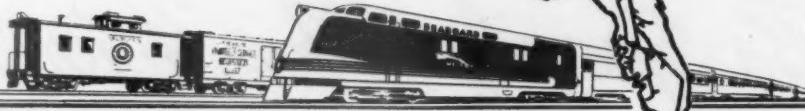
Fur trader, explorer, scout, James Bridger knew the Rockies thoroughly. His advice was eagerly sought by emigrants making the long journey over the Oregon Trail, stretching from Missouri to the Columbia River. Seaboard knows the *Southeast* . . . offers constructive aid to shippers.

**Your Modern Route
to and from
The Southeast . . .**

Important to your business is the fact that Seaboard gives *personalized* attention to your shipping instructions . . . carefully supervises shipments all along the way.



Your nearest
Seaboard Freight Traffic
Representative will
cheerfully furnish infor-
mation upon request.



THE ROUTE OF COURTEOUS SERVICE

(Continued from page 82)

The CHICAGO, ROCK ISLAND & PACIFIC has established two operating districts to take the place of the three into which the 8,000-mi. system was heretofore divided. **W. H. Hillis**, vice-president—operations, said the new plan provides for two general managers, one for each district, instead of one for the entire road. Headquarters for the new districts are at Des Moines, Iowa, and El Reno, Okla. General manager of the first district, which includes the Chicago, Rock Island, Des Moines, Cedar Rapids and Western divisions, is **R. E. Johnson**, formerly assistant general manager. His headquarters continue at Des Moines. **C. L. Franklin**, heretofore general manager at Chicago, is general manager of the second district, which includes the Missouri-Kansas, Panhandle, Oklahoma, Arkansas, Southern and joint Texas divisions, with headquarters at El Reno. Other appointments to make the new program effective are: **G. J. Mulick**, superintendent at Kansas City, Mo., as assistant general manager, first district, at Des Moines; **R. B. Smith**, assistant general manager at El Reno, as assistant general manager, second district, at Kansas City; and **B. R. Dew**, assistant general manager at Kansas City, as superintendent, Missouri-Kansas division, at that point. The Rock Island division has been expanded to take in the territory from Eldon, Iowa, to Air Line Junction, Mo., with **B. F. Wells** continuing as superintendent at Rock Island, Ill. The Des Moines division now also includes Oskaloosa, Iowa, to the west yard limit at Washington, Iowa, under **C. H. Hardwick**, who continues as superintendent at Des Moines.

As reported in *Railway Age* April 2, **Paul R. Goulett** has been appointed general manager of operation and transportation of the NEW YORK, NEW HAVEN & HARTFORD at New



Paul R. Goulett

Haven, Conn. Mr. Goulett was born at Monroe, Conn., on June 9, 1896, and entered railroad service with the

New Haven as operator and agent on May 27, 1911, subsequently serving as agent, clerk-operator, operator, assistant passenger car distributor, car service inspector, correspondence clerk, statistician, assistant chief clerk, chief clerk to general manager, transportation assistant, superintendent passenger transportation, assistant division superintendent. He was appointed assistant general manager in June 1946, which position he held until his recent promotion.

H. B. Parr, assistant freight traffic manager—rates of the CANADIAN NATIONAL, has been appointed asso-

ciate manager of sleeping and dining car services, with headquarters as before at Montreal. Mr. Parr will succeed **J. A. McIsaac** as manager of the sleeping and dining car department when Mr. McIsaac retires on pension in July.

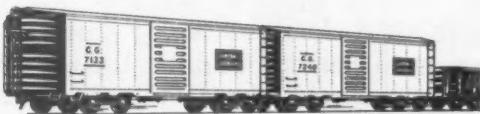
Frank S. Worthington, superintendent of the St. Louis-Louisville divisions of the SOUTHERN at Louisville, Ky., has been transferred to Atlanta, Ga., succeeding **Robert G. Claiborne**, who has been transferred to Macon, Ga. Mr. Claiborne replaces **John P. Mumford**, who has been transferred to Louisville.

MORE POWER—GREATER CAPACITY

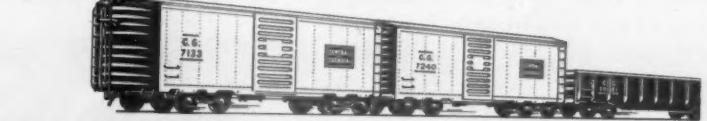
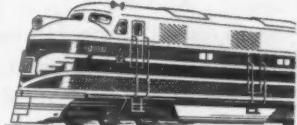
To do a Bigger Job!



The Central's Largest Equipment Order
is now going into service



Keeping step with the growth of our territory and the requirements of the Nation's defense, the Central of Georgia is now receiving delivery on a large increase in diesel motive power and hundreds of new freight cars to add to the productive strength of the country's transportation system.



**CENTRAL
OF
GEORGIA
RAILWAY**

Another Link in the Chain of Progress
of the Friendly Central

FIND THE CULPRIT



ALTHOUGH damaged lading upsets a lot of apple carts, it is seldom easy to find the culprit. Lading may have been damaged on the originating railroad, the delivering railroad or on some intermediate railroad, but if the lading was damaged in your car, your railroad must share the responsibility. Old fashioned draft rigging was never designed to protect lading under modern high speed operating conditions. Look at this chart showing shock transference to car structure with conventional cushioning. And then note the difference when cars are safeguarded with Duryea Cushion Underframe.

That tells the story! There is your answer . . . there is your solution to car and lading damage. Equip cars with the Duryea floating centersill . . . the sill that moves while the car stands still. Duryea Cushion Underframe absorbs and dissipates most of the impacts that are destructive to lading, providing that 40% extra lading protection which reduces lading damage claims to the irreducible minimum.

Equip all new freight cars for shock-force control. The way today is to specify Duryea.

HULSON CO. 332 SOUTH MICHIGAN AVENUE CHICAGO 4, ILLINOIS

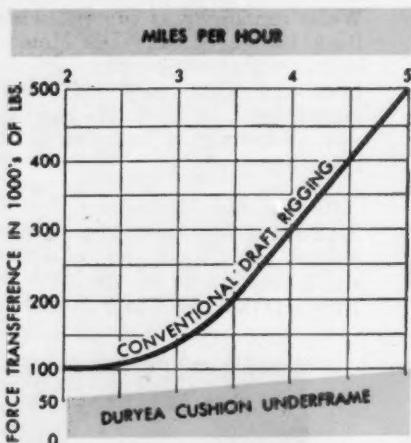
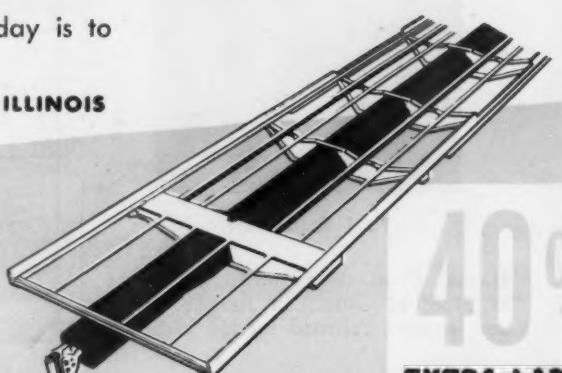


Chart above serves to illustrate with curves the rate of shock transferred to car structure at 2, 3½ and 5 miles per hour with conventional draft rigging as compared with Duryea Cushion Underframe.



THE SILL MOVES WHILE
THE CAR STANDS STILL

40%
EXTRA LADING
PROTECTION

duryea
cushion underframe

A. R. Nice, Jr., superintendent of the Shamokin division of the **READING** at Tamaqua, Pa., has been transferred to the Philadelphia division at Philadelphia, succeeding **J. F. Gruber**, who replaces Mr. Nice at Tamaqua.

John C. Brigham, senior research assistance of the **CANADIAN PACIFIC** at Montreal, has been appointed to the new post of assistant to the general superintendent of the Alberta district at Calgary, Alta.

TRAFFIC

As announced in the April 2 *Railway Age*, **H. C. Hallmark**, for many years freight traffic manager-rates and divisions of the **SOUTHERN PACIFIC**, who has been on leave from that road since 1947 serving as chairman of a special railroad committee of the Western Traffic Executive Committee, handling the government's reparation cases, has retired. Mr. Hallmark's career with the

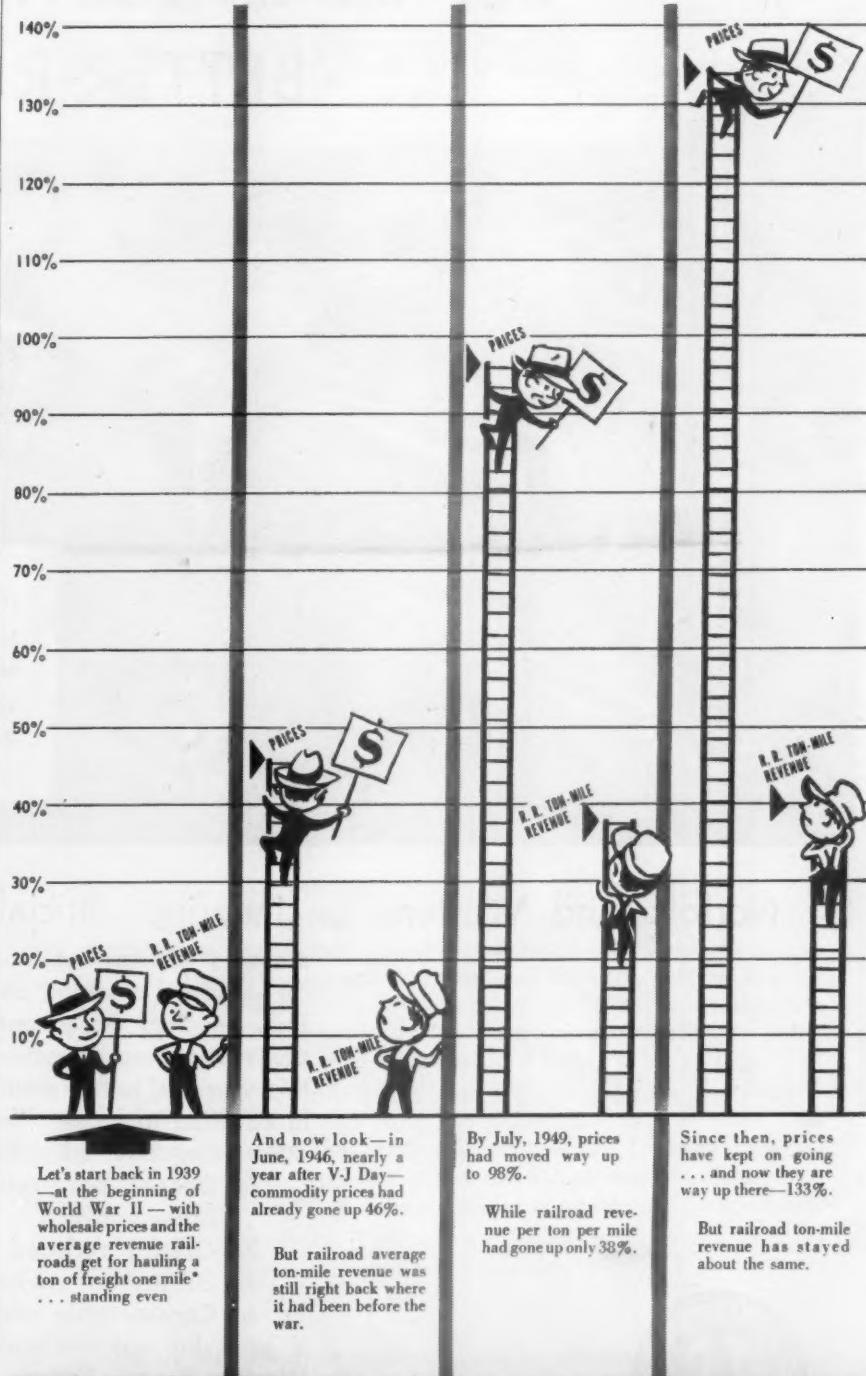


H. C. Hallmark

S.P. and affiliates began in 1905 as a clerk at Tucson, Ariz. After serving with the S. P. of Mexico and the former Arizona Eastern, he acted as general freight agent for the S.P. Since 1926 he has been in charge of freight rates and divisions for the road's Pacific lines, and was appointed freight traffic manager in 1933.

As announced in *Railway Age* of April 2, **Carl J. Dombrow** has become general passenger agent of the **DENVER & RIO GRANDE WESTERN** at Chicago, supervising the road's passenger offices in the eastern territory, and **Harley B. Nies**, assistant to the executive vice-president, has been appointed to succeed him as assistant passenger traffic manager at Denver, Colo. Mr. Dombrow was born in Chicago on November 4, 1899, and has spent his entire business life with the Rio Grande, entering service in 1921 as tracing clerk in the freight traffic department at Chicago. He served successively as city ticket agent, city passenger agent and district passenger agent at that point until 1943 when he

Railroad Freight Charges the Smallest Part of rising prices



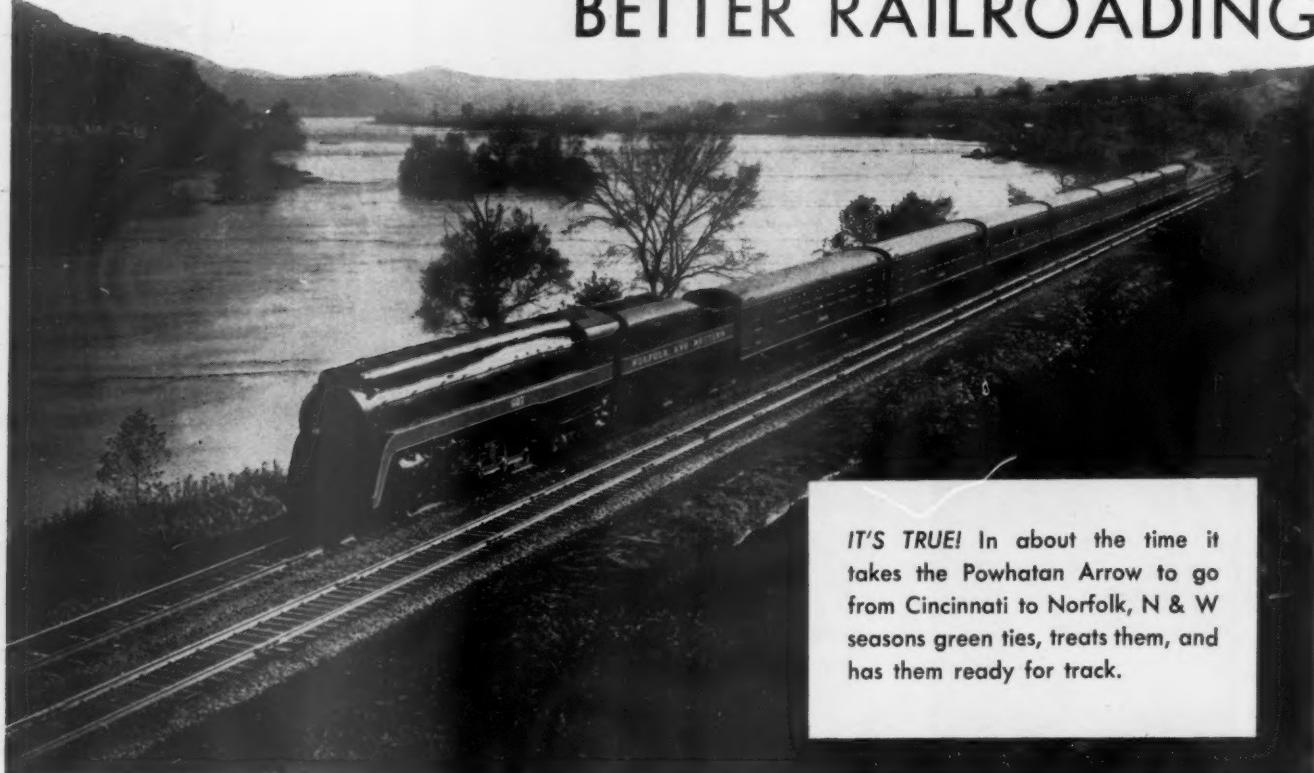
So it is — that railroad freight charges—which even before the war were but a small fraction of the cost of most articles you buy—are a still smaller fraction of today's prices.

*Prices are as reported in the Index Numbers of Wholesale Prices issued by the U. S. Department of Labor, Bureau of Labor Statistics.

Ton-mile revenue, while not an exact measure of freight rates, measures what railroads get, on the average, for hauling a ton of freight one mile.

ASSOCIATION OF
AMERICAN RAILROADS
Transportation Building • Washington 6, D. C.

Norfolk and Western uses BETTER CROSSTIES for BETTER RAILROADING



IT'S TRUE! In about the time it takes the Powhatan Arrow to go from Cincinnati to Norfolk, N & W seasons green ties, treats them, and has them ready for track.

Norfolk and Western engineering officials expect Vapor-Dried*

crossties will last at least two years longer in track than air-seasoned crossties, and will also cost less in the long run. They reached these conclusions after careful investigation, observation, and processing of more than 100,000 ties by this new and better method of seasoning before creosoting. In addition to longer life, the Norfolk & Western points to other economic advantages of Vapor-Drying*, including:

1. Deeper penetration and better distribution of preservative.
2. Greatly reduced green tie inventory.
3. Substantial savings in interest and insurance.
4. Considerable savings in less handling.

If you did not see Railway Age's report, "Norfolk and Western Expects Longer Life from Crossties", write for your copy now. Let us show you, too, how Vapor-Drying can prolong the life of your ties and reduce costs.

*Process Patented.



TAYLOR-COLQUITT CO.
SPARTANBURG, SOUTH CAROLINA

moved to Salt Lake City, Utah, as general agent passenger department, becoming assistant general passenger agent in 1946. Mr. Dombrow was appointed assistant passenger traffic manager at Denver in November 1947.

Mr. Nies started his railroad career in 1927 as a steno-clerk in the Denver traffic offices of the New York Central, entering Rio Grande service in 1939 as secretary to engineer of tests. He served successively as secretary to the assistant general freight agent, general manager, and vice-president and general manager, becoming chief clerk to the executive vice-president in January 1948. Since October 1949 he has been assistant to the executive vice-president.

As announced in the April 9 *Railway Age*, P. C. Hankey has been advanced to general freight agent for the GRAND TRUNK WESTERN-CANADIAN NATIONAL at Chicago. Mr. Hankey began service with the road in 1918 as stenographer in the freight department at St. Paul, Minn. Later he served successively as chief clerk, freight traffic representative, traveling freight agent and general agent. He became district freight agent at Milwaukee, Wis., in 1947, from which post he was recently promoted.

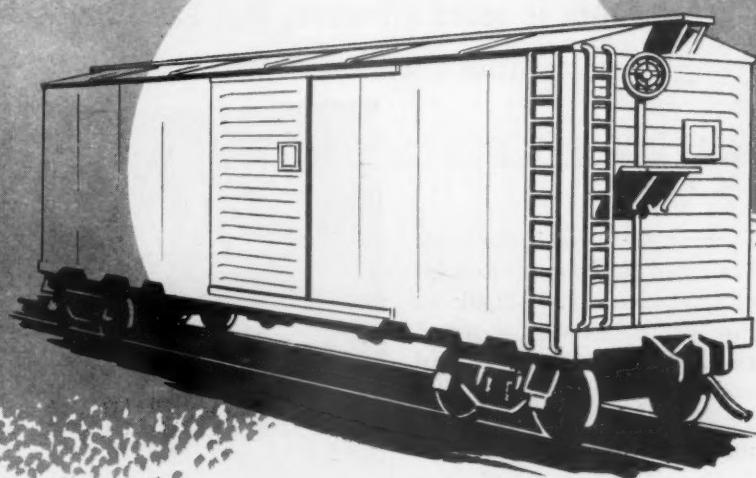
As reported in *Railway Age* April 9, Joseph M. Hurley has been appointed assistant traffic manager—rates and divisions of the NEW YORK, ONTARIO & WESTERN at New York. Mr. Hurley was born at North Creek, N. Y., October 20, 1890, and was graduated from Cornell University (B.S. 1915). After two years as instructor at Franklin Academy, Malone, N. Y., he became agricultural agent of the Washington Company, Hudson



Joseph M. Hurley

Falls, N. Y., and from 1921 to 1926 was manager of the New York Co-operative Seed Potato Association at Syracuse. Mr. Hurley entered railroad service in 1927 as agricultural agent of the N.Y.O.&W. at Middletown, N. Y., subsequently serving as agricultural and industrial agent and general agricultural agent. In 1943 he was appointed assistant general freight agent

PREMIUM CAR on any line...



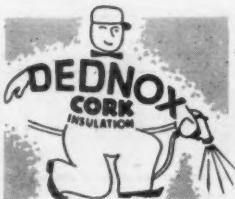
Dednox-Insulated for Condensation Control

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and in November 1948 became general freight agent at New York, which position he held until his recent promotion.

As announced in *Railway Age* April 9, **Raymond J. Gallagher, Sr.**, has been appointed general freight agent of the NEW YORK, ONTARIO & WESTERN at New York. Mr. Gallagher was born on June 18, 1895, at Mystic, Conn., and entered railroad service on January 2, 1915, in the operating department of the New York Central. In June 1916 he became clerk in the accounting department of the Boston & Maine at Boston, subsequently transferring to the freight traffic department in a clerical and supervisory capacity. Mr. Gallagher joined the N.Y.O.&W. on February 15, 1935, as auditor of revenues at Middletown, N. Y., and on January 2, 1948, was appointed auditor of revenues and disbursements there. On June 1, 1950, he became assistant general freight agent—rates and divisions at New York, serving in that capacity until his recent appointment as general freight agent.

Arthur J. Crookshank, assistant general freight agent of the NEW YORK CENTRAL SYSTEM at Cleveland, has been appointed assistant to the general freight traffic manager at New York.

R. Burford has been appointed general agent-local freight and passenger agent of the MISSOURI PACIFIC at Cape Girardeau, Mo.

H. O. Keys, district passenger agent of the CHICAGO & EASTERN ILLINOIS, has been appointed assistant to passenger traffic manager at Chicago.

J. H. Christoph, general agent of the VIRGINIAN at New York, has been appointed general freight and passenger traffic manager at New York. (Continued on page 93)



As reported in *Railway Age* April 23, Frank J. Kinney (above), has been appointed freight traffic manager, rates and divisions, of the Lehigh & Hudson River at New York. Mr. Kinney formerly held a similar position with the New York, Ontario & Western at New York



Dozin' High—International TD-24 slices off the top of a treacherous 700-foot talus slide to raise grade of railroad at water level below.

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(Continued from page 90)
ger agent at Norfolk, Va., succeeding **J. S. Branch**, who has been promoted to assistant traffic manager at Norfolk. **W. J. Deans, Jr.**, has been appointed general agent at Richmond, Va., succeeding **H. M. Rand**, who has been transferred to New York.

B. E. Montgomery, agent for the ST. LOUIS-SAN FRANCISCO at Malden, Mo., has been advanced to general agent at Cape Girardeau, Mo.

MECHANICAL

As reported in the April 9 *Railway Age*, **James W. Adams** has been promoted to general master mechanic of the LOUISVILLE & NASHVILLE, with headquarters at Louisville, Ky. Mr. Adams began railroading with the L. & N. as a machinist in July 1922. From 1926 to 1939 he served as president of the Association of Maintenance



James W. Adams

of Equipment Employes, subsequently acting as schedule foreman and erecting foreman for the L. & N. at South Louisville, Ky., until his appointment as assistant to superintendent there in July 1943. Mr. Adams became assistant superintendent in January 1948, from which post he has been promoted.

W. G. Carlson, master mechanic of the ERIE at Hornell, N. Y., with jurisdiction over the backshop, has been appointed district master mechanic of the Eastern district at Jersey City, N. J., succeeding **E. Pool**, who will retire on May 1, after more than 30 years of service. **E. Branning** succeeds Mr. Carlson as master mechanic at Hornell. The position of shop superintendent at Hornell, formerly held by Mr. Branning, has been abolished.

J. J. Bachus has been appointed master mechanic of the CHICAGO, ROCK ISLAND & PACIFIC's Chicago division, succeeding **J. H. Kasmeier**, who has been transferred to Fort Worth, Tex.

J. E. Hall, motive power inspector

of the CHESAPEAKE & OHIO, has been appointed supervisor diesel operation at Richmond, Va. **J. H. Workman**, equipment inspector at Clifton Forge, Va., has been appointed general diesel supervisor at Richmond.

PURCHASES & STORES

W. P. Kimpel has been appointed division storekeeper of the ERIE at Youngstown, Ohio, succeeding **P. E. Kukis**, who retired on May 1, after 46 years of service. Mr. Kukis' headquarters were at Cleveland.



A. H. Evans has been appointed general storekeeper of the Eastern region of the Canadian Pacific at Montreal. A biography of Mr. Evans was published in *Railway Age* April 16, page 84.

ENGINEERING AND SIGNALING

William H. Hobbs, director of research of the MISSOURI PACIFIC LINES, has been promoted to chief engineer-system, with headquarters at St. Louis, Mo., as reported in the March 12 *Railway Age*. A 1912 civil engineering graduate of Oklahoma Agricultural &



William H. Hobbs

Mechanical College, Mr. Hobbs began service with the M.P. shortly after completing college. He started as a rodman on an engineering party at Lit-

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tle Rock, Ark., and later served as instrumentman and assistant engineer on various divisions until early in 1918, when he entered the Army as a second lieutenant of field artillery. Upon his return from military service he was made assistant engineer for the M. P. at Monroe, La., which post he later held at Kansas City until 1920, when he was transferred to the chief engineer's office at St. Louis. Appointed engineer of design in charge of design and construction of yard facilities in 1925, Mr. Hobbs became engineering assistant in the executive department in 1937. When the Bureau of Research was established early in 1943, he was appointed its director.

T. Fred Burris, who has been promoted to assistant chief engineer of the CHESAPEAKE & OHIO's Pere Marquette district, with headquarters at Detroit, as announced in the March 19 *Railway Age*, was born at Sault Ste. Marie, Mich., July 27, 1899, and graduated from Michigan State College in 1924. Mr. Burris entered railroad service with the Pere Marquette (now P.M. district, C.&O.), and, after holding various positions, joined the U. S. Army Corps of Engineers. When he returned to the P.M., he was appointed instrumentman at Saginaw, Mich., and in 1929 became assistant engineer at Grand Rapids. Mr. Burris was advanced to division engineer in 1943, and continued in that position until his promotion.

William H. Giles, who has been promoted to assistant chief engineer, system—construction of the MISSOURI PACIFIC LINES, with headquarters at St. Louis, Mo. (*Railway Age*, March 19), was born at Little Rock, Ark., December 4, 1891, and was educated at

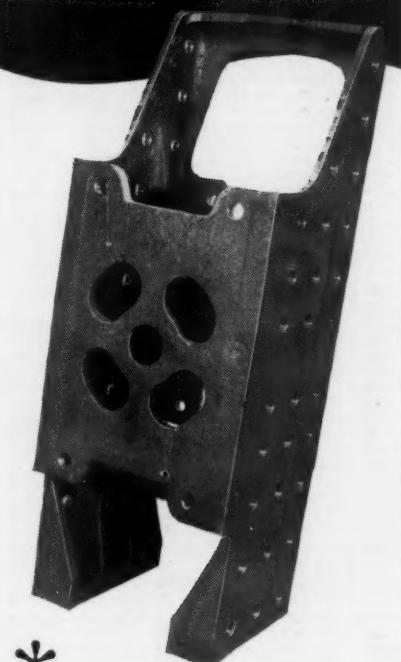


William H. Giles

Washington University, St. Louis extension division. Entering M. P. service in August 1914 as ballast inspector, he subsequently served as rodman, instrumentman and assistant engineer until his appointment as engineer of design in February 1937, which position he held before his promotion.

R. C. Postels, division engineer of the MINNEAPOLIS, ST. PAUL &

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SAULT STE. MARIE at Thief River Falls, Minn., has been transferred to Superior, Wis. Earl P. Hackert succeeds Mr. Postels.

R. W. Middleton, assistant engineer of the CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC at Chicago, has been appointed division engineer, Terre Haute division, at Terre Haute, Ind., succeeding R. J. Coffee, who has been ordered to active duty as lieutenant colonel with the Army Air Forces.

R. C. Baker, supervisor of bridges & buildings of the CHICAGO & EASTERN ILLINOIS, has been advanced to engineer of structures, with headquarters remaining at Danville, Ill. He succeeds J. E. Bernhardt, who has retired. (Railway Age, February 5.)

OBITUARY

William L. Eagle, 73, who retired in 1942 as captain of police of the SOUTHERN SYSTEM at Atlanta, Ga., died on April 28 in Churchton, Md.

Frank S. Moss, who retired in 1948 as assistant treasurer and cashier of the CHICAGO, INDIANAPOLIS & LOUISVILLE, after 52 years of service with that road, died on April 23 at his home in Chicago.

Fred N. Reynolds, former general superintendent of the Big Four district of the NEW YORK CENTRAL SYSTEM, died at Gorgas Hospital, Ancon, Canal Zone, on April 25, from a heart ailment.

Clyde P. Bowsher, who retired as freight traffic manager of the MISSOURI-KANSAS-TEXAS in 1948, died on April 2, as a result of heart disease, at his home in St. Louis.

Thomas E. Boyle, superintendent of the Maryland division of the PENNSYLVANIA at Baltimore, died on April 26 at Philadelphia. Mr. Boyle was born at Crawfordsville, Ind., on June 5, 1907, and attended the University of Notre Dame (B.S.C.E. 1928). He served in the maintenance of way department of the Pennsylvania during summer vacations from 1922 to 1928. In the latter year he was appointed assistant in the engineering corps, Toledo and Fort Wayne divisions, and subsequently served as assistant supervisor of track, general welding foreman, and supervisor of track. In 1940 he was appointed assistant division engineer of the Fort Wayne division and the following year became division engineer of the Conemaugh division, transferring to the Philadelphia Terminal division in 1943. Mr. Boyle was appointed superintendent of the Indianapolis division in 1945 and became superintendent freight transportation of the Western region at Chicago in 1947. He was appointed superintendent of the Maryland division in 1948.

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Freight Operating Statistics of Large Steam Railways — Selected

Region, Road and Year	Miles of road operated	Train-miles	Locomotive-Miles		Car-Miles		Ton-Miles (thousands)			Road locos. on line			
			Principal and helper	Light	Loaded (thous-ands)	Per cent loaded	Gross excl. locos. rev. and tenders	Net non-rev.	Serviceable	Unstored	Stored	B.O.	Per Cent B.O.
New Eng. Region	Boston & Maine.....	1,691	283,827	295,312	14,239	11,178	71.3	688,975	294,787	97	6	5	4.6
	1950	1,701	272,903	280,833	12,874	9,764	67.5	612,563	248,119	90	6	16	14.3
	N. Y., N. H. & Htd.....	1,766	314,881	315,838	21,938	12,321	70.3	772,199	341,243	100	.	14	12.3
	1950	1,773	266,955	268,437	30,462	10,734	67.5	646,373	271,735	124	8	10	7.0
	Delaware & Hudson.....	793	276,817	322,410	24,891	12,084	71.8	853,383	469,069	165	25	27	12.4
	1950	794	217,735	258,695	27,251	9,167	64.9	641,853	318,811	115	62	26	12.8
	Del., Lack. & Western.....	966	292,269	320,712	35,863	13,272	71.6	857,828	397,091	79	2	44	35.2
	1950	966	230,752	251,152	21,445	10,296	66.7	670,770	288,310	68	23	25	21.6
	Erie.....	12,245	674,027	688,845	42,079	35,354	69.6	2,228,020	947,473	189	11	28	12.3
	1950	12,231	555,415	569,428	40,292	28,989	65.2	1,860,227	752,892	168	49	52	19.3
Great Lakes Region	Grand Trunk Western.....	974	291,680	301,904	3,293	10,013	66.0	684,642	307,637	57	.	15	28.8
	1950	971	229,517	236,019	2,040	7,599	61.9	508,526	202,710	56	1	13	18.6
	Lehigh Valley.....	1,216	252,948	267,442	25,461	12,624	72.1	823,783	396,948	54	2	9	13.8
	1950	1,239	214,102	223,747	19,814	9,732	66.4	646,929	288,418	56	7	28	30.8
	New York Central.....	10,677	3,391,563	3,600,676	189,610	117,296	62.6	8,567,224	3,991,464	1,047	13	336	24.1
	1950	10,693	2,924,623	3,068,666	180,460	98,973	60.1	6,946,987	3,040,476	942	71	452	30.9
	New York, Chic. & St. L.....	1,921	890,527	912,667	14,063	32,653	66.2	2,266,817	1,020,825	220	1	31	12.3
	1950	2,162	681,551	694,977	8,252	25,189	62.2	1,761,295	740,202	195	13	67	24.4
	Pitts. & Lake Erie.....	221	102,807	106,328	90	4,196	66.7	349,827	212,250	32	.	14	30.4
	1950	221	71,535	72,687	68	2,415	62.6	205,625	117,842	27	2	20	40.8
Central Eastern Region	Wabash.....	2,381	587,654	598,780	10,650	23,811	69.9	1,512,563	656,746	142	1	77	35.0
	1950	2,381	573,208	581,029	9,927	20,205	65.7	1,305,989	524,537	138	10	61	29.2
	Baltimore & Ohio.....	6,083	1,948,523	2,259,774	235,526	66,983	62.6	5,207,508	2,548,313	679	62	225	23.3
	1950	6,086	1,590,317	1,902,540	195,202	54,006	60.4	4,062,409	1,898,179	670	97	296	27.8
	Central of New Jersey.....	410	79,713	79,857	4,008	2,979	65.6	220,379	116,648	42	.	8	16.0
	1950	411	60,596	61,260	4,189	2,237	64.8	162,754	82,517	41	2	7	14.0
	Central of Pennsylvania.....	210	75,248	84,133	15,270	2,955	71.2	214,689	118,455	37	.	15	28.8
	1950	212	56,134	63,505	9,319	2,174	62.7	161,428	81,567	31	3	19	35.8
	Chicago & Eastern Ill.....	886	134,987	134,987	2,811	5,501	69.9	364,683	179,866	27	.	2	6.9
	1950	906	124,504	126,253	2,872	4,187	65.6	277,599	128,233	31	.	1	3.1
Pocahontas Region	Elgin, Joliet & Eastern.....	238	99,497	102,316	653	3,880	67.4	302,303	167,287	41	.	1	2.4
	1950	238	89,895	90,603	4	3,000	63.4	233,595	123,005	38	.	2	5.0
	Pennsylvania System.....	10,045	3,335,691	3,674,836	378,666	137,004	67.3	9,470,059	4,621,602	1,287	.	310	19.4
	1950	10,009	2,717,559	2,961,282	313,830	105,268	61.3	7,452,996	3,332,869	1,164	72	477	27.8
	Reading.....	1,315	420,349	434,592	30,599	15,919	66.5	1,255,691	697,848	190	7	33	14.3
	1950	1,315	344,590	357,968	31,182	11,555	60.3	880,100	449,294	166	27	38	16.5
	Western Maryland.....	837	208,485	253,276	30,418	7,740	63.5	636,266	354,896	153	15	17	9.2
	1950	837	140,744	164,529	22,608	4,709	61.8	377,957	200,912	125	39	19	10.4
Southern Region	Chesapeake & Ohio.....	5,042	1,557,592	1,635,886	64,181	63,871	58.2	5,382,246	2,972,274	534	4	240	30.8
	1950	5,044	1,175,090	1,245,498	51,228	45,012	56.5	3,734,840	1,963,716	513	79	145	19.7
	Norfolk & Western.....	2,113	777,078	829,190	65,411	34,826	59.7	3,053,192	1,666,045	251	15	23	8.0
	1950	2,107	596,471	631,555	45,898	26,043	58.9	2,214,180	1,167,136	245	26	52	16.1
	Atlantic Coast Line.....	5,432	963,661	975,006	16,883	29,423	63.7	2,050,385	949,620	336	.	99	22.8
	1950	5,507	875,350	890,288	13,564	23,459	61.1	1,629,691	707,003	330	18	58	14.3
	Central of Georgia.....	1,783	309,934	313,965	5,324	8,718	73.5	564,909	268,928	101	2	10	8.8
	1950	1,783	260,839	263,498	4,267	6,812	69.6	4,466,585	203,574	97	4	10	9.0
	Gulf, Mobile & Ohio.....	2,851	346,100	346,100	340	17,496	74.4	1,116,714	540,868	82	.	1	1.2
	1950	2,851	318,343	318,343	291	13,705	71.1	884,367	414,696	61	5	4	5.7
Northwestern Region	Illinois Central.....	6,539	1,660,577	1,666,955	59,473	57,975	64.1	4,211,826	1,992,572	587	.	69	10.5
	1950	6,543	1,407,011	1,413,176	49,962	46,695	62.8	3,369,485	1,539,924	535	4	105	16.3
	Louisville & Nashville.....	4,769	1,214,717	1,295,518	34,355	37,771	65.3	2,744,653	1,401,313	320	9	102	23.7
	1950	4,770	1,146,065	1,233,575	31,200	30,010	62.0	2,176,519	1,081,860	346	28	102	21.4
	Nash., Chatt. & St. Louis.....	1,049	229,865	233,296	3,676	6,913	77.5	4,049,365	209,851	72	.	17	19.1
	1950	1,049	180,339	182,911	3,273	5,138	71.3	328,059	151,301	49	11	.	.
	Seaboard Air Line.....	4,136	798,347	829,838	4,876	27,829	67.4	1,925,052	886,510	261	14	56	16.9
	1950	4,136	742,405	759,681	10,042	23,264	62.4	1,646,279	706,285	289	8	15	4.8
	Southern.....	6,302	1,293,024	1,303,217	17,074	15,453	71.8	2,083,799	1,286,896	398	9	176	30.2
	1950	6,320	1,203,785	1,212,977	12,084	37,749	65.1	2,456,736	1,058,471	397	47	147	24.9
Southwestern Region	Chicago & North Western.....	7,920	917,403	935,605	26,877	32,527	69.6	2,229,003	975,810	305	7	129	29.3
	1950	8,072	823,378	839,800	21,934	25,229	62.1	1,782,780	744,256	281	43	156	32.5
	Chicago Great Western.....	1,441	154,631	154,631	9,730	9,037	73.4	575,252	264,026	35	.	9	19.1
	1950	1,445	159,445	159,673	9,703	8,364	65.1	549,450	228,936	38	.	.	.
	Chic., Milw., St. P. & Pac.....	10,663	1,286,648	1,332,185	48,258	48,442	69.0	3,204,939	1,493,579	438	66	71	12.3
	1950	10,663	1,144,727	1,192,164	47,463	36,711	63.4	2,496,320	1,079,812	443	62	88	14.8
	Chic., St. P., Minn. & Omaha.....	1,606	262,255	237,526	13,369	6,021	71.7	4,021	204	194,186	73	.	25

Items for the Month of January 1951 Compared with January 1950

Region, Road and Year			Freight cars on line			G.t.m.per train-hr.	G.t.m.per train-mi.	Net ton-mi.	Net ton-mi.	Car-miles	Net daily ton-mi.	Train-miles per train-hour	Miles per loco.	
			Home	Foreign	Total	Per Cent B.O.	excl.loco	and tenders	per l'd.	car-mile	car-day	per road-mi.	per day	
New Eng.	Boston & Maine	1951	1,294	10,016	11,310	2.8	37,620	2,432	1,040	26.4	875	46.5	5,623	15.5
	1950	2,066	8,495	10,561	4.5	36,628	2,250	911	25.4	764	44.5	4,705	16.3	
	N. Y., N. H. & Htd.	1951	1,476	19,196	20,672	1.2	35,855	2,455	1,085	27.7	541	27.8	6,233	14.6
	1950	2,169	17,219	19,388	2.3	35,725	2,424	1,019	25.3	468	27.4	4,944	14.8	
Delaware & Hudson	1951	1,960	6,653	8,613	4.6	57,041	3,095	1,701	38.8	1,768	63.5	19,081	18.5	
	1950	6,160	4,030	10,190	5.4	53,716	2,961	1,471	34.8	1,017	45.1	12,952	18.2	
Del., Lack. & Western	1951	4,269	11,707	15,976	8.5	45,151	2,984	1,381	29.9	791	36.9	13,260	15.4	
Erie	1951	6,195	22,169	28,364	5.6	56,230	3,331	1,416	26.8	1,047	56.1	13,614	17.0	
	1950	13,703	14,856	28,559	8.3	56,323	3,375	1,366	26.0	854	50.4	10,886	16.8	
Grand Trunk Western	1951	3,433	11,510	14,943	4.5	46,394	2,388	1,073	30.7	659	32.5	10,189	19.8	
	1950	4,826	9,173	13,999	8.4	43,722	2,229	889	26.7	487	29.5	6,734	19.7	
Lehigh Valley	1951	3,880	12,674	16,554	5.9	62,947	3,291	1,586	31.4	783	34.5	10,530	19.3	
	1950	8,972	7,658	16,630	11.0	58,015	3,061	1,365	29.6	542	27.5	7,509	19.2	
New York Central	1951	50,846	143,086	193,932	3.8	39,277	2,568	1,196	34.0	680	31.9	12,059	15.5	
	1950	75,718	78,064	153,782	9.2	42,129	2,413	1,056	30.7	639	34.6	9,172	17.7	
New York, Chic. & St. L.	1951	3,950	24,005	27,955	3.4	43,108	2,600	1,170	31.3	1,201	58.0	15,231	16.9	
Pitts. & Lake Erie	1951	10,896	13,844	24,740	4.3	47,642	2,610	1,097	29.4	963	52.6	11,044	18.4	
	1950	3,928	14,016	17,944	8.4	45,705	3,409	2,069	50.6	395	11.7	30,981	13.4	
Wabash	1951	5,648	14,549	20,197	2.3	52,646	2,607	1,132	27.6	1,066	55.3	8,898	20.5	
	1950	8,144	12,850	20,994	3.2	48,660	2,302	924	26.0	821	48.1	7,106	21.4	
Baltimore & Ohio	1951	38,426	57,702	96,128	6.2	36,240	2,707	1,325	38.0	873	36.7	13,514	13.6	
	1950	57,086	32,348	89,434	13.2	36,137	2,609	1,219	35.1	690	32.5	10,061	14.1	
Central of New Jersey	1951	337	9,920	10,257	2.3	38,394	2,872	1,520	39.2	374	14.6	9,178	13.9	
Central of Pennsylvania	1950	1,038	7,824	8,862	9.2	36,665	2,752	1,395	36.9	306	12.8	6,476	13.7	
Central Pennsylvania	1951	916	3,646	4,562	15.0	41,882	3,046	1,680	40.1	863	30.2	18,196	14.7	
	1950	2,094	2,281	4,375	18.4	40,489	2,950	1,491	37.5	546	23.2	12,411	14.6	
Chicago & Eastern Ill.	1951	1,618	5,360	6,978	6.9	43,764	2,717	1,340	32.7	912	39.9	6,549	16.2	
	1950	2,721	3,622	6,343	5.7	36,536	2,244	1,036	30.6	671	33.4	4,566	16.4	
Elgin, Joliet & Eastern	1951	6,246	12,215	18,461	1.9	18,448	3,166	1,752	43.1	270	9.3	22,674	6.1	
Pennsylvania System	1951	87,090	125,930	213,020	10.6	40,622	2,935	1,432	33.7	692	30.5	14,842	14.3	
Reading	1951	10,201	23,858	34,059	3.5	38,245	2,989	1,661	43.8	707	24.3	17,119	12.8	
Western Maryland	1951	4,311	4,928	9,239	1.7	41,270	3,108	1,734	45.9	1,279	43.9	13,678	13.5	
	1950	7,901	2,672	10,573	1.8	37,362	2,725	1,448	42.7	664	25.2	7,743	13.9	
Pocahontas Region	Chesapeake & Ohio	1951	42,846	25,240	68,086	5.6	56,343	3,514	1,940	46.5	1,415	52.2	19,016	16.3
	1950	57,870	20,686	78,556	8.6	53,653	3,213	1,689	43.6	796	32.3	12,559	16.9	
Norfolk & Western	1951	27,755	8,881	36,636	2.8	64,926	3,994	2,179	47.8	1,509	52.9	25,435	16.5	
	1950	38,659	6,504	45,163	4.6	61,263	3,763	1,984	44.8	843	31.9	17,869	16.5	
Atlantic Coast Line	1951	11,407	24,650	36,057	2.4	31,896	2,143	992	32.3	890	43.3	5,639	15.0	
	1950	14,841	16,149	30,990	4.4	29,601	1,871	812	30.1	741	40.2	4,141	15.9	
Central of Georgia	1951	1,676	6,363	8,039	3.4	31,837	1,830	871	30.8	1,061	46.8	4,865	17.5	
Gulf, Mobile & Ohio	1951	3,729	4,795	8,524	8.2	30,285	1,716	782	29.9	790	38.0	3,683	17.7	
	1950	2,741	13,427	16,168	1.6	62,002	3,239	1,569	30.9	1,110	48.2	6,120	19.2	
Illinois Central	1951	18,657	35,588	54,245	2.2	42,237	2,575	1,218	34.4	1,180	53.3	9,830	16.7	
	1950	27,214	25,337	52,551	2.0	42,279	2,437	1,114	33.0	953	46.1	7,592	17.7	
Louisville & Nashville	1951	28,569	17,706	46,275	7.9	34,827	2,267	1,157	37.1	987	40.7	9,479	15.4	
1950	41,726	12,393	54,119	10.2	30,369	1,907	948	36.0	645	28.9	7,316	16.0		
Nash., Chatt. & St. Louis	1951	1,231	4,724	5,955	2.3	38,529	1,875	916	30.4	1,178	50.1	6,453	20.6	
Seaboard Air Line	1951	8,280	18,999	27,279	1.6	42,110	2,470	1,306	30.3	923	42.9	4,692	20.4	
	1950	11,930	14,417	26,347	3.7	38,881	2,265	971	30.4	882	46.5	5,509	17.5	
Southern	1951	12,596	28,690	41,286	3.1	35,448	2,188	1,004	28.5	997	48.7	6,587	16.8	
	1950	17,838	28,481	46,319	4.6	35,140	2,055	885	28.0	748	41.0	5,403	17.2	
Chicago & North Western	1951	15,562	35,743	51,305	4.1	37,951	2,556	1,119	30.0	623	29.8	3,974	15.6	
	1950	23,296	29,301	52,597	3.7	34,211	2,274	949	29.5	458	25.0	2,974	15.8	
Chicago Great Western	1951	1,048	6,568	7,616	2.4	61,145	3,744	1,719	29.2	1,138	53.1	5,910	16.4	
	1950	1,932	5,604	7,536	3.0	61,309	3,460	1,442	27.4	1,043	58.5	5,111	17.8	
Chic., Milw., St. P. & Pac.	1951	23,074	47,827	70,901	2.0	40,027	2,508	1,169	30.8	709	33.4	4,518	16.1	
	1950	35,849	31,458	67,307	2.0	33,635	2,208	955	29.4	541	29.0	3,267	15.4	
Chic., St. P., Minn. & Omaha	1951	1,059	8,125	9,184	3.4	25,069	1,921	916	32.3	674	29.1	3,900	13.9	
	1950	990	7,177	8,167	5.1	23,078	1,820	784	31.0	602	31.8	3,078	13.0	
Duluth, Missabe & Iron Range	1951	8,894	803	9,697	4.3	27,771	2,039	1,149	50.5	180	6.3	3,869	15.5	
	1950	14,467	759	15,226	3.3	14,128	1,112	514	32.2	32	1.8	864	13.5	
Great Northern	1951	17,876	16,817	34,693	3.4	39,263	2,357	1,128	30.5	1,065	46.8	4,654	16.8	
	1950	26,743	17,889	44,632	4.9	30,694	2,035	927	30.2	637	29.6	3,337	15.3	
Minneap., St. P. & St. M.	1951	4,814	9,166	13,980	6.2	36,710	2,060	1,016	32.7	942	41.1	3,152	18.1	
	1950	7,274	7,957	15,231	7.9	31,225	1,794	811	29.6	640	32.9	2,219	17.6	
Northern Pacific	1951	15,115	14,497	29,612	5.8	43,300	2,580	1,215	31.7	1,049	43.2	4,735	17.0	
	1950	21,305	14,519	35,824	10.1	30,114	1,994	941	32.0	579	25.4	3,049	15.7	
Northwestern Region	Atch., Top. & S. Fe (incl. G. C. & S. F. & P. & S. F.)	1951	38,394	31,104	69,498	4.1	56,377	2,711	1,099	26.3	1			

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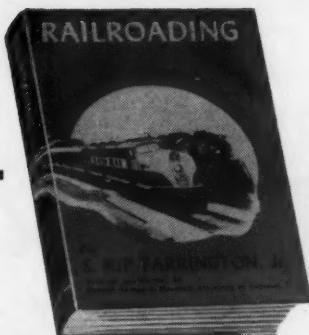
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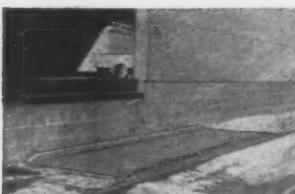
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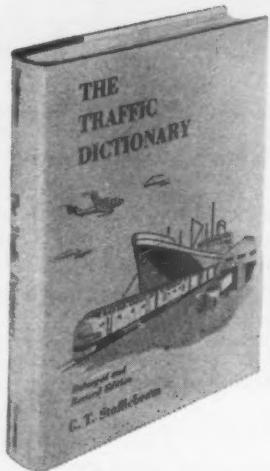


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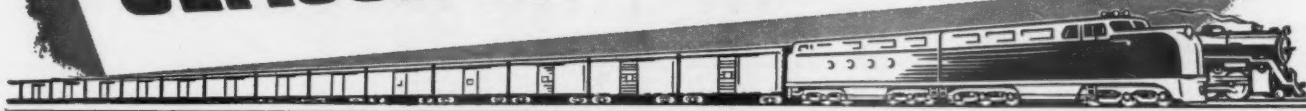


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